

Inventory of the Woody Flora in Permanent Plots of Kampong Thom and Kampong Chhnang Provinces, Cambodia

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To improve our knowledge of the woody flora of Cambodia, we collected specimens of trees, shrubs and woody vines within and near permanent plots of evergreen and deciduous tropical forests in lowland Cambodia. We sequenced *rbcL* and *matK* for most specimens, searched for species having high homologies with those sequences and then identified the collections using taxonomic literature and herbarium specimens. As a result, we identified 325 species in 69 families, including 163 trees, 90 shrubs, 67 vines, four palms and an epiphytic parasite. The frequencies of correct identification of BLAST searched sequences were low at the species level (about 15%), but high at the family and generic levels (about 100% and 75%, respectively). Twenty-one species were new to Cambodia. We corrected many previous misidentifications in the plot records.

Key words: Cambodia, DNA barcoding, forest plots, lowland tropical forest, tropical deciduous forest, tropical evergreen forest

Among Indochinese countries, the flora of Cambodia remains most poorly studied due to the long period of civil war. After the colonization by the French in 1863, the flora of French Indochina, including Cambodia, was surveyed by French botanists. The results were published in the series *Flore Générale de l'Indo-Chine* between 1902 and 1950. During and after the second world war, however, botanical surveys in Cambodia were disrupted until the termination of the Cambodian civil war in 1992.

Recently, a growing body of forest studies in Cambodia has been aimed at developing sustain-

able forestry and forest conservation. These studies include determination of wood fuel consumption rates (Top *et al.* 2004a, Top *et al.* 2004c, Top *et al.* 2006), forest biomass increment (Top *et al.* 2004b), and forest structure and composition (Kimphat *et al.* 2002, Kao and Iida 2006, Tani *et al.* 2007, Hiramatsu *et al.* 2007, Top *et al.* 2009, Theilade *et al.* 2011). Nevertheless, the forest flora of Cambodia remains poorly documented, making it difficult to identify the plants and to carry out studies on forest composition. For example, in one study, Kao and Iida (2006) listed 80 species for which the scientific name remained

undetermined, and Top *et al.* (2009) listed 88 of a total of 243 (36%) unidentified species. Even for known species, the identification often differs within the literature. For example, ‘Popel’, an important timber species, is identified as *Shorea cochinchinensis* Pierre by DANIDA (2004), *Shorea roxburghii* G. Don by Kao and Iida (2006), and *Hopea recopei* Pierre ex Laness. by Top *et al.* (2009).

To overcome this difficulty, we inventoried the trees in forest plots in Kampong Thom and Kampong Chhnang provinces. Because many plot trees remained sterile during our field surveys, we employed DNA barcoding (using short DNA sequences) to assign unknown specimens to a genus or species (Hebert *et al.* 2003). For land plants, a combination of a phylogenetically conservative coding locus (*rbcL*) and an additional more rapidly evolving region (part of the *matK* gene) enables us to identify unknown specimens to at least the genus level (Kress *et al.* 2009). Using sequences of both regions, we tentatively assigned specimens to a genus, then identified the species by utilizing taxonomic literature and herbarium specimens. The purpose of this paper is to present an identification list of 325 woody species toward an elucidation of the forest flora of Cambodia.

Materials and methods

Itinerary and field work records

We collected specimens of trees, shrubs and woody vines within permanent sample plots (PSPs) in Kampong Thom and Kampong Chhnang Provinces and also in forests and forest margins in the vicinity of these plots (Fig. 1). The specimens are deposited in the facilities of the Forest Administration of Cambodia and in the Herbarium of the Museum of Kyushu University (FU), and are annotated as voucher of this paper. The PSPs were placed in four different types of lowland tropical forests located at 50–70 m above sea level. PSPs KT01 to KT32 were placed in primary lowland forests in Kampong Thom Province. The plots were 50 m × 50 m (0.25 ha). Among them, KT13 to KT16 were placed in de-

ciduous forests dominated by *Dipterocarpus obtusifolius* Teijsm. ex Miq. These four plots were separately located. Four plots in the evergreen forests were placed side by side and clustered in a 100 m × 100 m (1 ha) plots. For example, KT21–24 was a 1 ha plot composed of four sub-plots (KT21, KT22, KT23, KT24) placed side by side (Fig. 1). The PSPs RG01–15 were 50 m × 50 m (0.25 ha) and placed in regrowth forests in Kampong Thom Province. In these PSPs, the primary forest had been cleared. Regrowth of the forests have been monitored since 2003. These PSPs were placed along three lines; Line 1 (RG01–05), Line 2 (RG06–10), and Line 3 (RG11–15). The plots were placed 100 m apart along each line, and the lines were placed approximately 2 km apart. PSPs SB01–08 were placed in a community forestry area at Svay Bakao in Kampong Chhnang Province. Within this area, some native trees, such as *Shorea roxburghii* were planted. The plantations have been managed by a community of local people. Within the plantations, deciduous forests composed of native trees are recovering. The growth of the trees has been monitored since 2007.

In January 2010, we visited the following PSPs in Kampong Thom Province; KT21–24 (latitude and longitude; 12.34, 105.21) from Jan 8–10, RG01 (12.35, 105.15) on Jan 10, and KT25–28 (12.34, 105.23) on Jan 11. In Kampong Chhnang Province, we visited PSP of SB02 (11.59, 104.44) from Jan 12–14. In November 2010, we visited the following PSPs in Kampong Thom Province; KT31 (12.34, 105.23) from Nov 18–19, KT25–28 (12.34, 105.23) from Nov 19–20, KT21–24 (12.34, 105.21) and KT29–32 (12.34, 105.23) on Nov 21, RG11 (12.38, 105.16) on Nov 22 and 24, RG12 (12.38, 105.16) and RG13 (12.36, 105.16) on Nov 24, KT09–12 (12.58, 105.25) on Nov 25, KT05–08 from Nov 25–26, and KT13–16 (12.40, 105.17) on Nov 26. In Kampong Chhnang Province, we visited PSPs of SB02 (11.59, 104.44) from Nov 16–17, SB01 (11.59, 104.44) on Nov 17 and Nov 27, and SB07–08 (11.59, 104.44) on Nov 17. In April 2011, we visited KT13–16, KT21–24, KT 25–28, KT29–32, RG11–13 and SB02 again and collected flowers and fruits for identification.

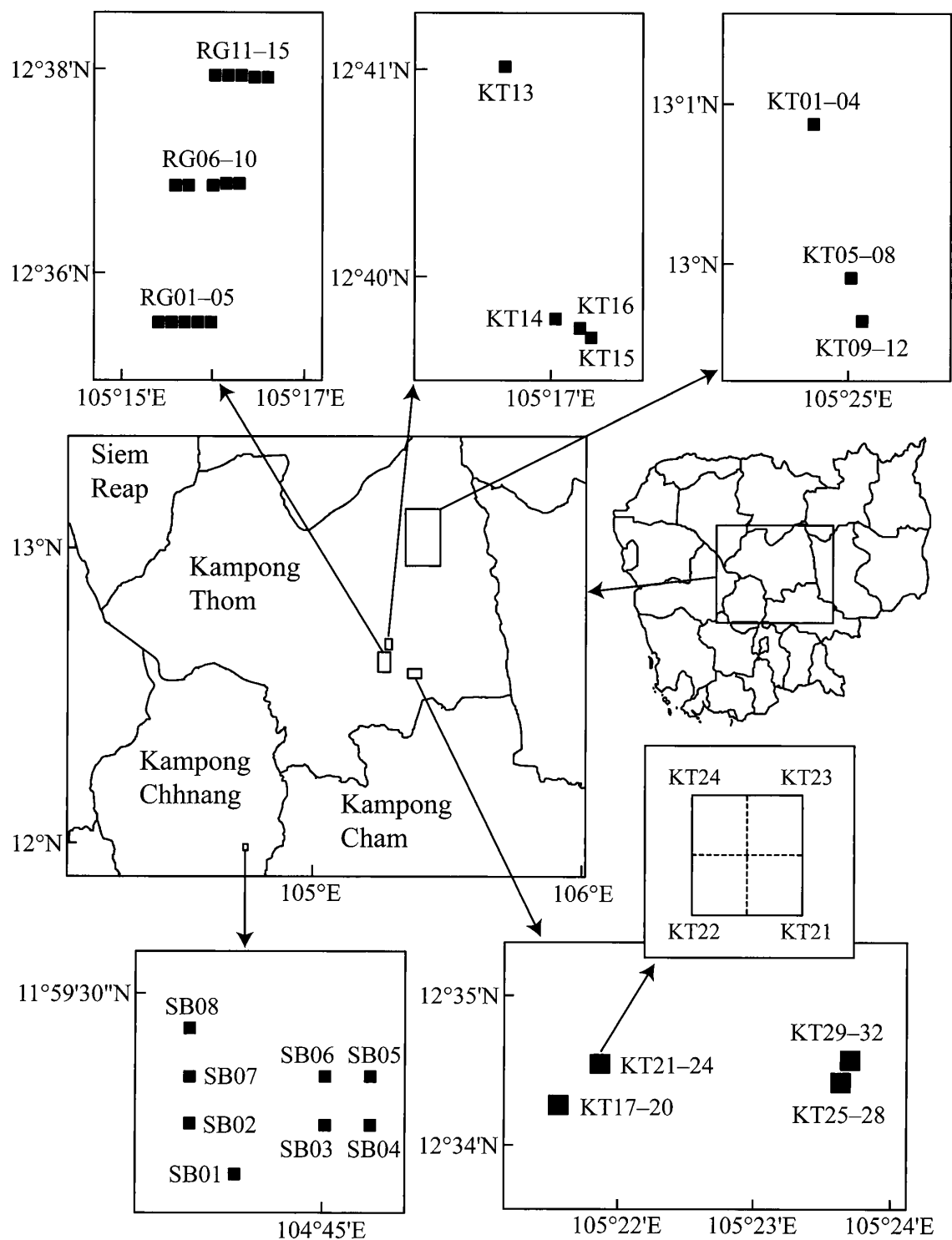


FIG. 1. Location of permanent plots where woody flora was studied. RG plots were placed along three lines 2 km apart. Five plots, established 100 m apart along each line, were numbered from east to west RG01 to RG05. Among the KT plots, KT01–04, KT05–08, KT09–12, KT17–20, KT21–24, KT25–28 and KT29–32 were placed side by side and clustered in a 1 ha plot in an evergreen forest. KT13, KT14, KT15 and KT16 were placed separately in a deciduous forest. Plots SB01–SB08 were placed separately in the community forest in a deciduous forest area at Svay Bakao.

In PSPs, trees having a DBH larger than 7.5 cm are numbered, mapped and monitored for their survivorship and growth. Because of the deficient records for shrubs and vines in these PSPs, we placed a 100 m × 5 m transect in each of KT14, KT21 to KT22, RG13, and SB02 and collected specimens from all trees, shrubs, and vines within the transect in April 2011. The transect at KT21 and KT 22, designated transect KT21 below, were placed along the southern margin of the plots; from the 100 m edge line of KT21 and KT22 to another 100 m line 5 m inside the edge. In KT14, RG13 and SB02, the transects were extended to the outside of the plots because the edge lines of those plots were less than 100 m (20 m or 50 m). A 100 m × 5 m transect was divided into 10 sections of 10 m × 5 m; all species of trees, shrubs, palms and vines were collected in the first section. From the second section to the tenth section, we collected species newly found in each section.

Identification with DNA sequences

DNA was isolated from a small piece of silica-gel dried leaf from each collection using a standard protocol. Following CBOL Plant Working Group (2009) and Dunning & Savolainen (2010), DNA sequences of *rbcL* and *matK* regions were determined. We determined *rbcL* sequences for 604 specimens and *matK* sequences for 575 specimens. For each sequence, we searched for the greatest local similarity in DNA sequence databases using BLAST. Based on the identification of families and genera of BLAST searched sequences, we further checked the taxonomic literature and representative specimens in major herbaria (BKF, K, L, P, SING) to identify our collections.

Results

Outline of the list and the efficiency of DNA barcoding

We identified 325 species in 69 families, including 163 trees, 90 shrubs, 67 vines, four palms and an epiphytic parasite. Of the trees, 91 species are being monitored in the primary forest plots of Kampong Thom, 35 species in the regrowth plots

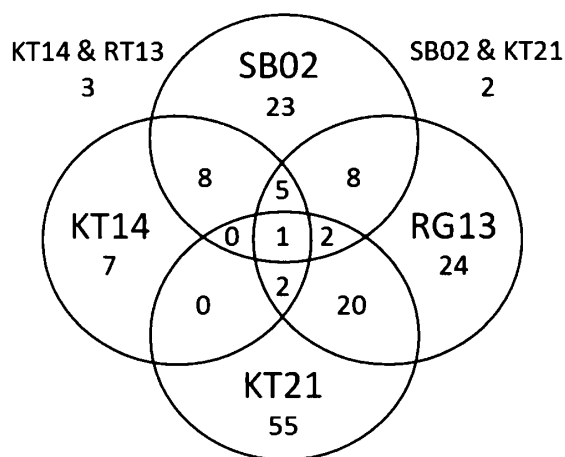


FIG. 2. The number of singletons and shared species in the transects placed in KT14 (primary deciduous forest), KT21 (primary evergreen forest), RG13 (secondary evergreen forest) and SB02 (secondary deciduous forest).

of Kampong Thom and 24 species in the community forestry plots of Kampong Chhnang. In addition to the species of trees in the PSPs, we collected 34 species of trees in the primary forest of Kampong Thom (KT), 3 in the regrowth forest of Kampong Thom (RG) and 25 in the community forestry area of Kampong Chhnang (SB). The forest plot data amounted to 74.2% (92/124), 92.1% (35/38) and 49.0% (24/49) of the species of trees we collected in KT, RG and SB, respectively. We collected 60, 14 and 19 species of shrubs and 43, 9 and 16 species of vines in KT, RG and SB, respectively.

In the transects placed in KT14 (primary deciduous forest), KT21 (primary evergreen forest), RG13 (secondary evergreen forest) and SB02 (secondary deciduous forest), we collected 26, 82, 65 and 49 species, respectively. Among these, 7, 55, 24 and 23 species (26.9%, 67.1%, 36.9% and 46.9%), respectively, were singletons (species found only in one transect) (Fig. 2). KT21 shared as many as 25 species with RG13 but only 3 species with KT14 and those 3 species are common to KT14, KT21 and RG13 (Fig. 2).

Sequencing success was high for both *rbcL* (99.7%) and *matK* (98.5%). The frequency of correct identification using *rbcL* was 100% at the family level, 75.2% at the genus level and 15.3% at the species level. The frequency of correct

identification using *matK* was 100%, 78.0% and 17.1% for family, genus and species, respectively.

A list of the species and field observations are reported after the discussion.

Discussion

New records to Cambodia

The flora of Indochina, including Cambodia, was comprehensively studied by French botanists between 1902 and 1950. Because both Kampong Thom and Kampong Chhnang were easily accessible and well botanized, most of the 325 species we found are already included in *Flore Générale de l'Indo-Chine*. Twenty-one species, however, are new records for Cambodia: *Artabotrys oblongus* King, *Beilschmiedia inconspicua* Kosterm., *Beilschmiedia roxburghiana* Nees, *Chonemorpha verrucosa* (Blume) D. J. Middleton, *Coptosapelta flavescens* Korth., *Croton columnaris* Airy Shaw, *Diospyros undulata* var. *cratericalyx* (Craib) Bakh., *Friesodielsia desmoides* (Craib) Steenis, *Glochidion kerrii* Craib, *Hypserpa nitida* Miers, *Kibatalia laurifolia* (Ridl.) Woodson, *Mussaenda macrophylla* Wall., *Phoebe lanceolata* (Nees) Nees, *Polyalthia debilis* Finet & Gagnep., *Polyalthia luensis* Finet & Gagnep., *Pterospermum lanceifolium* Roxb., *Smilax inversa* T. Koyama, *Spatholobus acuminatus* Benth., *Toxicarpus lagenifer* Kerr, *Trichosanthes pedata* Merr. & Chun, and *Wikstroemia polyantha* Merr. These discoveries illustrate the need for further studies to elucidate the woody flora of Cambodia.

In addition to these new records, 16 species were identified to the genus level but not to the species level. Some of them remain unidentified because we were unable to find fertile specimens. Some others, including one species each of *Clausena*, *Gardenia*, *Murraya*, *Mussaenda* and two each of *Mallotus*, *Mussaenda* and *Trigonostemon* remain unidentified, even though we found fertile individuals to compare with descriptions of species reported from Cambodia and surrounding areas. Further detailed studies may result in new additions to the flora of Cambodia, or even new species.

The pitfalls in using folk taxonomy

In previous studies of Cambodian forest plots, local people were asked to provide the local name for plants, which were then correlated with lists of local and scientific names. This one-to-one translation method often resulted in serious misidentifications. First, different species are often not distinguished by local people. For example, the name 'Atith' refers to both *Dehaasia cuneata* Blume and *Phoebe lanceolata* (Lauraceae). Second, similar species are often misidentified even if they are not related. For example, *Chionanthus microstigma* (Gagnep.) P. S. Green (Oleaceae) was identified as 'Atith' (*Dehaasia* or *Phoebe* of Lauraceae). Third, local people often apply different names to the same species depending on tree size or other traits. For example, 'Chektom' and 'Teppirou' were applied to *Cinnamomum polyadelphum* (Lour.) Kosterm., but were previously used for *Cinnamomum litseifolium* Thwaites and *Cinnamomum cambodianum* Lecomte, respectively in previous reports (Mizoue 2006, Top *et al.* 2009, Theilade *et al.* 2011). Fourth, different names are used for the same species in different areas or by different people. For example, *Cinnamomum polyadelphum* is not only 'Chektom' or 'Teppirou', but also 'Kro Lanh Pok'. Due to these reasons, the correlation of colloquial name to a scientific name has often resulted in confusion. To avoid confusion, voucher specimens of plot trees should be collected and kept in herbaria where their identity can be confirmed.

Utility of DNA sequences to identify sterile specimens

In this study, we determined DNA sequences of two chloroplast genes *rbcL* and *matK* for most of 325 species. The sequence data were extremely helpful for identifying families and genera, especially for sterile specimens. For example, a tree called 'Kudoch' was among the species of which we did not know the scientific name. Top *et al.* (2009) identified 'Kudoch' as a species of *Dioscorea*, but that identification was doubtful because the DBH of the plot trees called 'Kudoch' was more than 30 cm. The species of *Dioscorea* are vines with much more slender stems. Species

of *Dioscorea*, in fact, are called ‘Vor Kudooh’. Because the tree called ‘Kudooh’ was sterile, it was difficult to identify, even to family. The BLAST search of the *rbcL* sequence, however, showed homology as high as 509/510 with the sequence of *Xanthophyllum octandrum* Domin in the DNA database. It was then easy to identify the tree as *Xanthophyllum flavescens* Roxb. by using herbarium specimens and the taxonomic literature. While DNA sequences of *rbcL* and *matK* are useful for identifying families and genera, they are not useful for identifying species. Examination of herbarium specimens and taxonomic literature is necessary for identification of the species.

Next steps

This study was the first step toward a woody flora of Cambodia. Although the list of 325 species provided here is a start, it represents only a small proportion of the woody species of Cambodia. Additional samples should be collected throughout Cambodia. We collected additional specimens in the PSPs in Kratie and Ratanakiri provinces in June 2011 and in six transects in the Central Cardamon Mountains and in four transects in Bokor National Park in April and December, 2011. Further studies of these and additional samples from other provinces should improve our understanding of the woody flora of Cambodia.

Species list and field observations

Families of angiosperms are arranged following the linear sequence of families in LAPG III (Haston *et al.* 2009). The number shown in each family of angiosperms is the family number of LAPG III.

GYMNOSPERMS

Pinaceae

Pinus merkusii Jungh. & de Vriese, Pl. Nov. Ind. Bat. 5: t. 2 (1845); Hickel, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 1077 (1931); Phengkklai, Fl. Thailand 2: 193 (1972); P. H. Hô, Ill. Fl. Vietnam 1: 219, fig. 875 (1999); Dy Phon, Pl. Util. Cambod.: 500 (2000).

Local name (Representative specimen): Sral (415).

Distribution: Cambodia, India, Indonesia (Sumatra), Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: *Pinus merkusii* occurs occasionally as a tall tree in dry, open stands in the vicinity of swamp forests in Kampong Thom.

ANGIOSPERMS

16. Myristicaceae

Knema globularia (Lam.) Warb., Nova Acta Acad. Caes. Leop.-Carol. German. Nat. Cur. 68: 601 (1897); W. J. de Wilde, Blumea 25: 411 (1979); Blumea 32: 120, f. 2 (1987); P. H. Hô, Ill. Fl. Vietnam 1: 282, fig. 1131 (1999); Fl. Males., Ser. 1, Spermat. 14: 265 (2000); Dy Phon, Pl. Util. Cambod.: 387 (2000); W. J. de Wilde, Fl. Thailand 7: 757 (2002); Li & Wilson, Fl. China 7: 97 (2008).

Myristica globularia Lam., Mém. Acad. Sci. (Paris) 1788: 162 (1791).

Knema corticosa Lour., Fl. Cochinch. 2: 605 (1790); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 105 (1914).

Local names (Representative specimens): Sma Krobey (49, 227, 228 [KT30-tree 07], 236, 381, 402), Rom Leay Chiem (181).

Distribution: Cambodia, China (Yunnan), Indonesia (Sumatra and W Java), Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Observation: *Knema globularia* is a tall tree found throughout in evergreen stands of Kampong Thom. It was not recorded to be in deciduous stands in Kampong Thom, but we found one tree in a deciduous stand in Kampong Chhnang (181).

21. Annonaceae

Artabotrys oblongus King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61: 33 (1892).

Local name (Representative specimen): Vor Trodak (1087).

Distribution: Cambodia (new record), Malaysia.

Observation: *Artabotrys oblongus* is an occasional woody vine in evergreen stands in Kampong Thom. It was collected in the vicinity of plot KT32. It is characterized by glabrous oblong leaves with distinct lateral veins on the upper surface and thinly hairy petals.

Artabotrys sp. 1.

Local name (Representative specimens): Vor Trodak (145, 3892).

Observation: *Artabotrys* is an occasional woody vine in deciduous stands of Kampong Chhnang. We collected it in the vicinity of plot SB02. It is distinguished from *A. oblongus* in its indistinct lateral veins, glabrous petals and thick, often spiny, stems.

Dasymaschalon lomentaceum Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 143 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 105 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 254, fig. 1022 (1999); Dy Phon, Pl. Util. Cambod.: 222 (2000); Wang *et al.*, Syst. Bot. 34: 261 (2009).

Local name (Representative specimen): Choeung Chab (548).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Dasymaschalon lomentaceum* is an occasional small shrub in deciduous stands of Kampong Chhnang.

Dasymaschalon macrocalyx Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 144 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 105 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 256, fig. 1023 (1999); Dy Phon, Pl. Util. Cambod.: 222 (2000); Wang *et al.*, Syst. Bot. 34: 262 (2009).

Local name (Representative specimens): Choeung Chab (52, 267, 329, 924).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Dasymaschalon macrocalyx* is a small shrub common in the understory of evergreen stands in Kampong Thom.

***Desmos* sp. 1.**

Local name (Representative specimen): not recorded (923).

Observation: This species of *Desmos* was a vine in the evergreen forest of Kampong Thom. Both *rbcL* and *matK* sequences match sequences of *Desmos dumosus* (Roxb.) Saff., but differ from sequences of *Desmos chinensis* Lour., *Desmos cochinchinensis* Lour. and *Desmos dinhensis* (Pierre ex Finet & Gagnep.) Merr. in one base in the *matK* sequence. This specimen differs from *D. dumosus* in having larger leaves with more lateral veins (13 or 14) than *D. dumosus* (5 or 6).

Friesodielsia desmoides (Craib) Steenis, Blumea 12: 358 (1964).

Goniiothalamus desmoides Craib, Bull. Misc. Inform. Kew 1922: 167 (1922).

Local name (Representative specimen): Vor Kror Van (30).

Distribution: Cambodia (new record), Thailand.

Observation: *Friesodielsia desmoides* is a vine of evergreen forests of Kampong Thom. It was in plot KT21–24.

Goniiothalamus tamirensis Pierre ex Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 119 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 89 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 278, fig. 1115 (1999).

Local names (Representative specimens): Kropoat Chrouk (310 [fr], 372 [fr], 472, 919, 1035), Rom Poat Chrouk (1002).

Distribution: Cambodia, Laos, Vietnam.

Observation: *Goniiothalamus tamirensis* is a small shrub common in the understory of evergreen stands in Kampong Thom.

Melodorum fruticosum Lour., Fl. Cochinch. 1: 351, 1790; J. Sinclair, Gard. Bull. Singapore 14: 370 (1955); Kessler *et al.*, Prov. Checklist: 192 (1994).

Melodorum schefferi Pierre ex Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 134 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 99 (1907).

Melodorum clavipes Hance, J. Bot. 15: 328 (1877).

Mitrella mesnyi auct. non (Pierre) Bân; Dy Phon, Pl. Util. Cambod.: 443 (2000).

Popowia aberrans auct. non Pierre ex Finet & Gagnep.; Dy Phon, Pl. Util. Cambod.: 443 (2000) [as a synonym].

Local name (Representative specimens): Romdoul (53, 241, 361 [KT32-tree 56], 466, 934 [fl], 955).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Melodorum fruticosum* is a tall tree common in primary evergreen and regrowth plots of Kampong Thom. It is the type species of the genus *Melodorum* (Sinclair 1955), and is the national flower of Cambodia. It has been misidentified in Cambodia as *Mitrella mesnyi* or *Popowia aberrans* Pierre ex Finet & Gagnep. (Dy Phon 2000).

Mitrephora tomentosa Hook.f. & Thomson, Fl. Ind. [Hooker f. & Thomson] 1: 113 (1855); Li *et al.*, Fl. China 19: 688 (2011).

Kinginda tomentosa (Hook.f. & Thomson) Kuntze, Revis. Gen. Pl. 1: 7 (1891).

Local name (Representative specimen): Vor Krovel (927 [fl]).

Distribution: Cambodia, China, India, Laos, Thailand, Vietnam.

Observation: *Mitrephora tomentosa* occurs in evergreen forests of Kampong Thom. This collection was near plot KT21–24. Leaves, young branches and pedicels are densely hairy.

Polyalthia debilis (Pierre) Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 96 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 76 (1907).

Uvaria debilis Pierre, Fl. Forest. Cochinch.: t. 29 (1881).

Polyalthia parviflora Ridl., J. Straits Branch Roy. Asiat. Soc. 61: 49 (1912); P. H. Hô, Ill. Fl. Vietnam 1: 261, fig. 1045 (1999).

Local name (Representative specimens): Kdor Kam-brok (16, 891 [fl], 909 [fl], 943, 1032).

Distribution: Cambodia (new record), China, India, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: *Polyalthia debilis* is a small shrub common in the understory of evergreen stands in Kampong Thom. It is similar to *Goniiothalamus repevensis*, but the veins on the upper surface of the leaves are more distinct.

Polyalthia evecta Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 91 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 69 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 257, fig. 1027 (1999).

Local name (Representative specimens): Kdaing Bye (154 [fl], 1100 [fl]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Polyalthia evecta* is a shrub less than 50 cm tall in open deciduous stands in Kampong Chhnang.

Polyalthia luensis (Pierre) Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 94 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 72 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 260, fig. 1039 (1999).

Unona luensis Pierre, Fl. Forest. Cochinch.: t. 30 (1881).

Local name (Representative specimen): not recorded (1101).

Distribution: Cambodia (new record), Laos, Vietnam.

Observation: *Polyalthia luensis* is a shrub 1–1.5 m tall, occurring sporadically in secondary forests of Kampong Chhnang.

Uvaria cordata Wall. ex Alston, Handb. Fl. Ceylon 6 Suppl.: 4 (1931); P. H. Hô, Ill. Fl. Vietnam 1: 247, fig. 988 (1999). —**Figs. 3a & 4d.**

Local name (Representative specimens): Vor Krovel (290 [fl], 506 [fr]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Uvaria cordata* is a vine in evergreen forests of Kampong Thom. It was in plot KT27 (290) and in another evergreen stand (506).

Uvaria fauveliana Pierre ex Ast, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 64 (1938); P. H. Hô, Ill. Fl. Vietnam 1: 248, fig. 989 (1999). —**Fig. 3b.**

Uvaria hamiltonii J. D. Hook. et Thomson var. *fauveliana* Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 68 (1906).

Local name (Representative specimens): Saomao Prey (304, 1044).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Uvaria fauveliana* is a vine along margins of secondary forests in Kampong Thom.

Uvaria hahnii (Finet & Gagnep.) J. Sinclair, Gard. Bull. Singapore 14: 44 (1953). —**Figs. 3c & 4e.**

Unona hahnii Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 78 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 59 (1907).

Local names (Representative specimens): Vor Sang Khuoch (521), Vor Treall Sva (933), unknown (1058).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Uvaria hahnii* is a vine along margins of evergreen forests in Kampong Thom near KT21 (933) and RG11 (1058).

Uvaria micrantha Hook.f. & Thomson, Fl. Ind. [Hooker f. & Thomson] 1: 103 (1885); Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 70 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 54 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 249, fig. 995 (1999). —**Fig. 3d.**

Cyathostemma micranthum (A. DC.) J. Sinclair, Gard. Bull. Singapore 14: 225 (1955).

Local name (Representative specimen): Vor Krovan (309).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Uvaria micrantha* is a vine along margins of secondary forests in Kampong Thom, where *U. fauveliana* also occurs. *Cyathostemma* is separated from *Uvaria* in having inwardly curved petals, but a recent molecular phylogenetic study showed it to be polyphyletic and should be included in *Uvaria* (Zhou *et al.* 2009).

Uvaria rufa Blume, Fl. Javae Anon.: 19 (1830); King, Ann. Roy. Bot. Gard. (Calcutta) 4: 30 (1893); Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 67 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 51 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 250, fig. 1000 (1999); Dy Phon, Pl. Util. Cambod.: 619 (2000); Li & Gilbert, Fl. China 19: 676 (2011). —**Figs. 4a & 4f.**

Local name (Representative specimens): Trial (147, 1096, 1104, 1124 [fl]).

Distribution: Cambodia, China (southern area), India, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: *Uvaria rufa* is in open deciduous stands of Kampong Chhnang. It is characterized by dark red petals and stellate tomentose leaves.

Uvaria siamensis (Scheff.) L. L. Zhou, Y. C. F. Su & R. M. K. Saunders, Syst. Biodivers. 7 (3): 255 (2009). —**Fig. 4b.**

Rauwenhoffia siamensis Scheff. Ann. Jard. Bot. Buitenzorg 2: 23 (1885); P. H. Hô, Ill. Fl. Vietnam 1: 246, fig. 985 (1999).

Uvaria godefroyana Finet & Gagnep. Bull. Soc. Bot. France 53 (Mém. 4 (2)): 71, pl. xii (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 55 (1907).

Local name (Representative specimen): Vor Krovan (549).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: *Uvaria siamensis* was a vine under a fig tree in an open place in Kampong Chhnang.

Uvaria wrayi (King) L. L. Zhou, Y. C. F. Su & R. M. K. Saunders, Syst. Biodivers. 7 (3): 255 (2009). —**Fig. 4c.**

Cyathostemma wrayi King, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 61 (1): 61 (1892); Ann. Roy. Bot. Gard. (Calcutta) 4: 12, pl. 39 (1893); P. H. Hô, Ill. Fl. Vietnam 1: 246, fig. 983 (1999).

Local name (Representative specimen): Vor Kreal (110).

Distribution: Cambodia, Malaysia, Vietnam.

Observation: *Cyathostemma wrayi* was a vine on the margin of an evergreen forest near plot KT25–28.

Xylopia pierrei Hance, J. Bot. 15: 328 (1877); Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 129 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 95 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 265, fig. 1059 (1999); Dy Phon, Pl. Util. Cambod.: 639 (2000).

Local names (Representative specimens): Kray Sor (76, 112, 374, 537, 997 [fl]), Kray (203, 214).

Distribution: Cambodia, Thailand, Vietnam.

Observation: *Xylopia pierrei* is an occasional, tall tree in primary evergreen and regrowth plots in Kampong Thom and in deciduous plots in Kampong Chhnang. Specimen 76 was collected in an evergreen plot in Kampong Thom and 112 was in a deciduous plot in Kampong Chhnang. These specimens differ in 1 base in the *rbcL* locus and may represent two cryptic species.

Xylopia vielana Pierre, Fl. Forest. Cochinch.: t. 34 (1881); Finet & Gagnep., Bull. Soc. Bot. France 53 (Mém. 4 (2)): 128 (1906); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 94 (1907); P. H. Hô, Ill. Fl. Vietnam 1: 265, fig. 1061 (1999); Dy Phon, Pl. Util. Cambod.: 639 (2000); Li & Gilbert, Fl. China 19: 689 (2011).

Local name (Representative specimens): Kray Krohom (77, 375, 527).

Distribution: Cambodia, Laos, Thailand (northern area), Vietnam.

Observation: *Xylopia vielana* is an occasional, tall tree in primary evergreen plots and regrowth forests of Kampong Thom. It often grows with *X. pierrei*.

28. Lauraceae

Beilschmiedia inconspicua Kosterm., Nat. Hist. Bull. Siam Soc. 25: 30 (1975).

Local name (Representative specimen): Khnhe (489, 2609 [KT10-tree 21]).

Distribution: Cambodia (new record), Thailand.

Observation: *Beilschmiedia inconspicua* is a rare, tall tree in evergreen plots in Kampong Thom; three trees were recorded in KT07 and one in KT11.

Beilschmiedia roxburghiana Nees, Pl. Asiat. Rar. (Wallich). 2: 61 (1831); P. H. Hô, Ill. Fl. Vietnam 1: 385, fig. 1545 (1999); Li *et al.*, Fl. China 7: 102 (2008).

Local names (Representative specimens): Pian Kong (Peam Korng, 163), Romdenh (540).

Distribution: Bhutan, Cambodia (new record), China, India, Myanmar, Nepal, Thailand, Vietnam.

Observation: *Beilschmiedia roxburghiana* is a rare, tall tree in deciduous stands in Kampong Chhnang. We found one tree each in the vicinity of plot SB01 (540) and SB02 (163). While *B. inconspicua* has smooth bark and

alternate thinner leaves shortly acuminate at the apex and cuneate at the base, *B. roxburghiana* has scaly bark and subopposite thicker leaves shortly acuminate or obtuse at the apex and attenuate into the petiole.

Cinnamomum bejolghota (Buch.-Ham.) Sweet, Hort. Brit. [Sweet]: 344 (1826); P. H. Hô, Ill. Fl. Vietnam 1: 350, fig. 1401 (1999); Li *et al.*, Fl. China 7: 170 (2008).

Local name (Representative specimen): Chektom (1022).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Laos, Myanmar, Nepal, Thailand, Vietnam.

Observation: *Cinnamomum bejolghota* is distinct in having narrower leaves with lateral veins reaching the apex of the lamina. It was growing in Regrowth Plot 15 in Kampong Thom.

Cinnamomum polyadelphum (Lour.) Kosterm., Reinwardtia 10 (5): 449 (1988); P. H. Hô, Ill. Fl. Vietnam 1: 348, fig. 1393 (1999); Dy Phon, Pl. Util. Cambod.: 155 (2000).

Cinnamomum litseaefolium auct. non Thwaites; Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 113 (1914).

Local names (Representative specimens): Chektom (10, 60, 334), Kro Lanh Pok (459), Teppirou (324, 325).

Distribution: Cambodia, Laos, Vietnam.

Observation: *Cinnamomum polyadelphum* is a tall tree common in some evergreen plots of Kampong Thom (KT21–24 and KT29–32) and occasionally in regrowth plots. Local people often distinguish ‘Chektom’ and ‘Teppirou’, but they are doubtfully distinct. Specimens 60 and 325 were collected in different seasons and identified as ‘Teppirou’ and ‘Chektom’, respectively, by the local people, but they were collected from the same tree (KT22-tree 20). ‘Kro Lanh Pok’ is another local name used in a different area of Kampong Thom (KT09-tree 12).

Dehaasia cuneata Blume in Nees, Syst. Laur.: 378 (1836), ‘Haasia’; Blume, Rumphia 1: 164, t. 46 (1837); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 151 (1914); P. H. Hô, Ill. Fl. Vietnam 1: 387, figs. 1552–53 (1999); Dy Phon, Pl. Util. Cambod.: 224 (2000).

Local names (Representative specimens): Svay Svak (31).

Distribution: Cambodia, Laos, Vietnam.

var. *longifolia* Lecomte ex H. Liou, Laurac. Chine & Indochine: 114 (1934). —Fig. 5a.

Local names (Representative specimens): Atith (316).

Distribution: Cambodia, Laos, Vietnam.

Observation: *Dehaasia cuneata* is a tall tree occurring widely in evergreen stands in Kampong Thom. It is characterized by white branches, buds silky-hairy, lanceolate or ovate–lanceolate leaves up to 15 cm long gathered at the tips of branches. Var. *longifolia* (Hô 1999, fig. 1553) is distinguished by buds scattered-hairy, lanceolate leaves and long petioles (up to 40 mm in 316). Our collec-

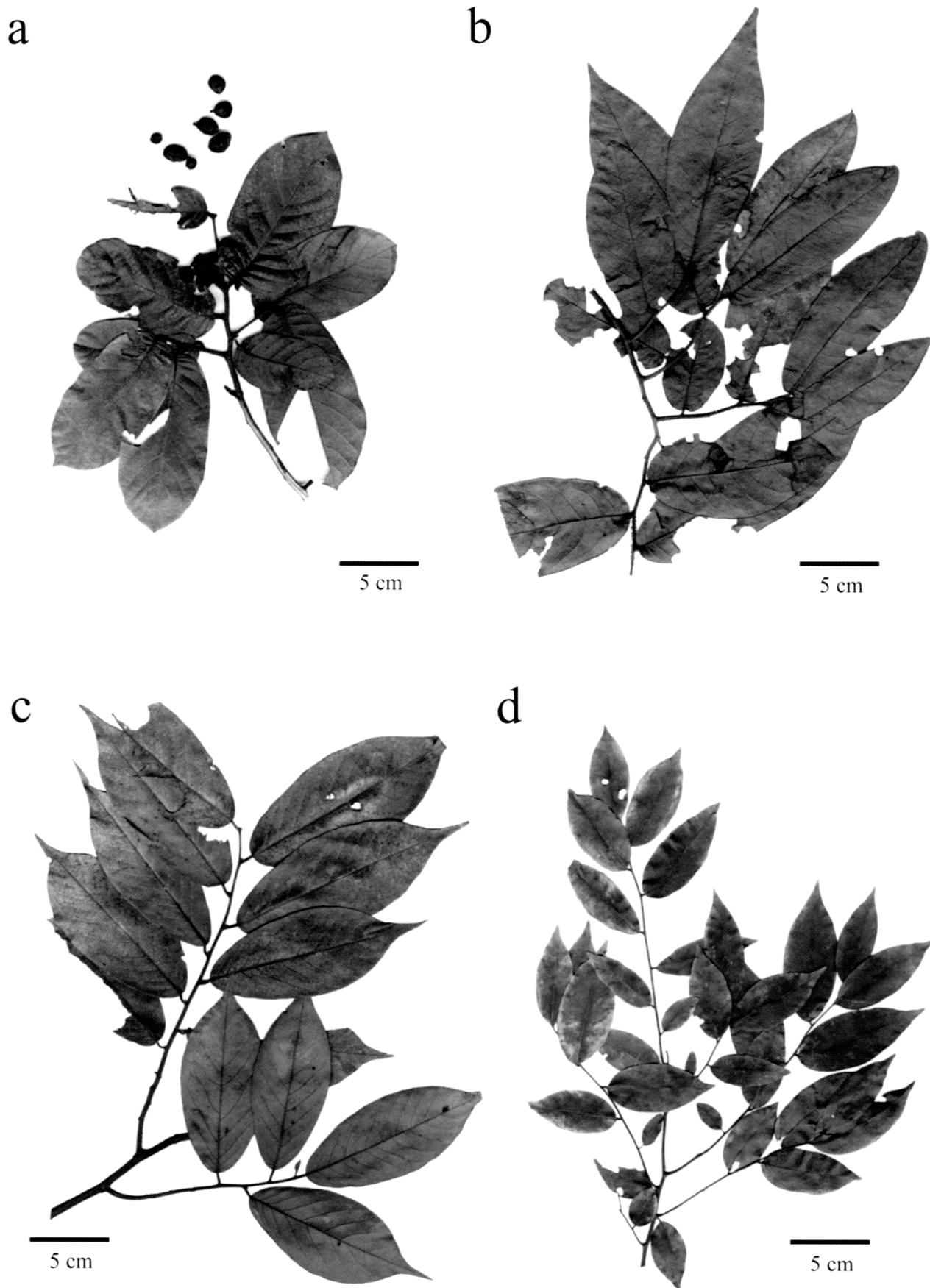


Fig. 3. *Uvaria*, Annonaceae. a: *U. cordata* (290). b: *U. fauveliana* (304). c: *U. hahnii* (521). d: *U. micrantha* (309).

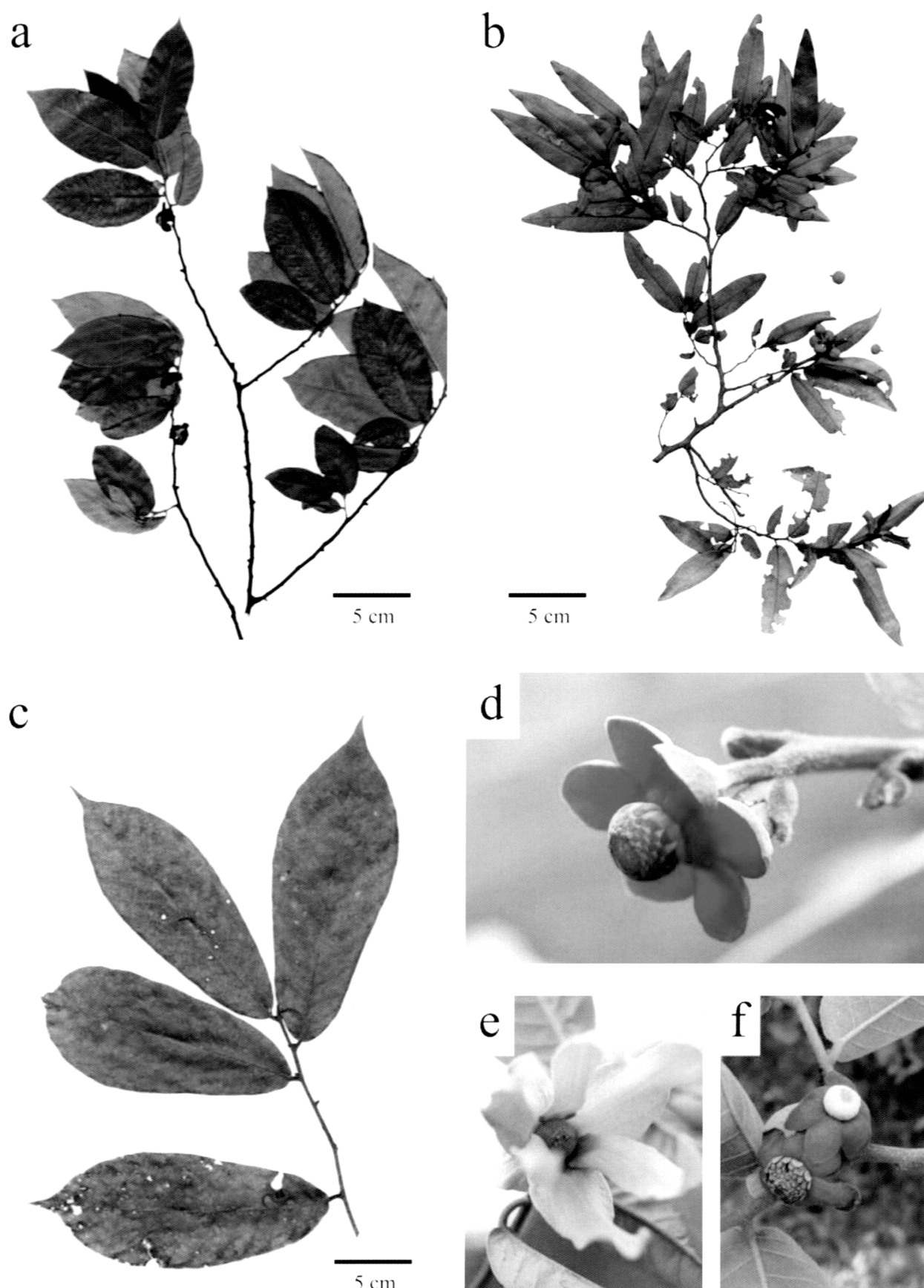


Fig. 4. *Uvalia*, Annonaceae (continued). a: *U. rufa* (1124). b: *U. siamensis* (549). c: *U. wrayi* (110). d: *U. cordata* (290 [fl]). e: *U. hahnii* (1058 [fl]). f: *U. rufa* (1124 [fl]).

tion (316) identified as *D. cuneata* var. *longifolia* is similar to type specimen (Laos, Poilane No. 11683), but branch color is slightly different. Further studies are needed to elucidate the identity of this plant. Additionally, our two collections were collected in same plot (KT21), but could be clearly distinguished by above characters, so it was expected these were different species. *D. cuneata* var. *longifolia* is similar to *Phoebe lanceolata* and both species are called 'Atith' by the local people. While the leaves of *D. cuneata* var. *longifolia* are glaucous on the lower surface and blackened upon drying, the leaves of *P. lanceolata* are greenish on the lower surface and remain green upon drying. 'Svay Svak' is a local name for *Chionanthes thorelii* and its application to *D. cuneata* var. *longifolia* is probably due to misidentification by the local people.

Litsea glutinosa (Lour.) C. B. Rob., Philipp. J. Sci., C 6: 321 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 360, fig. 1443 (1999); Dy Phon, Pl. Util. Cambod.: 405 (2000). —**Fig. 5b.**

Litsea sebifera Pers., Syn. Pl. [Persoon] 2: 4 (1806); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 132 (1914).

Local names (Representative specimens): Kampul Bai (128), Kropul Bay (543), Krapul Bay (1116 [fr]).

Distribution: Bhutan, Cambodia, China, India, Laos, Myanmar, Nepal, Philippines, Vietnam.

Observation: *Litsea glutinosa* is an occasional, tall tree in deciduous stands in Kampong Chhnang.

Litsea vang Lecomte, Nouv. Arch. Mus. Hist. Nat., Ser. 5: 84 (1913); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 139 (1914); Huang *et al.*, Fl. China 7: 126 (2008). —**Fig. 5c.**

Local name (Representative specimens): Beloy (Be-leuy, 40, 319, 354, 458).

Distribution: Bhutan, Cambodia, China, India, Laos, Myanmar, Nepal, Philippines, Thailand, Vietnam.

Observation: *Litsea vang* is a tall, widely occurring tree in evergreen plots in Kampong Thom. The lower surface of the leaves has been described as glabrous, but we observed young leaves of sprouting shoots to often be softly hairy. This species is characterized by the dark petioles and young shoots; the petioles and young shoots of *L. glutinosa* are always greenish. Cambodian plants have been distinguished as var. *lobata* Lecomte or var. *grandifolia* Lecomte (Lecomte 1914), but these varieties are doubtfully distinct.

Phoebe lanceolata (Nees) Nees, Syst. Laur.: 109 (1836); P. H. Hô, Ill. Fl. Vietnam 1: 392, fig. 1575 (1999); Huang *et al.*, Fl. China 7: 192 (2008). —**Fig. 5d.**

Local name (Representative specimens): Atith (326 [KT22-tree 24], 350 [fl], 972).

Distribution: Bhutan, Cambodia (new record), China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Thailand, Vietnam.

Observation: *Phoebe lanceolata* is a tall, widely occurring tree in evergreen stands in Kampong Thom. It and *Dehaasia cuneata* are often in the same plot and are not distinguished by local people.

59. Smilacaceae

Smilax cambodiana Gagnep., Bull. Soc. Bot. France 81: 72 (1934) & Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 768 (1934); T. Koyama, Fl. Cambodge, Laos & Vietnam 20: 110 (1983); P. H. Hô, Ill. Fl. Vietnam 3: 492, fig. 9667 (2000).

Local name (Representative specimens): Porpreus (428, 533, 982).

Distribution: Cambodia, Vietnam.

Observation: We collected *Smilax cambodiana* in open deciduous stands and half open regrowth stands in Kampong Thom. The leaves are elliptic with the basal and disal halves almost symmetrical; the apex is obtuse or short acute; the base is obtuse or short cuneate.

Smilax inversa T. Koyama, Brittonia 26: 134 (1974); Fl. Cambodge, Laos & Vietnam 20: 102 (1983); P. H. Hô, Ill. Fl. Vietnam 3: 491, fig. 9665 (2000).

Local name (Representative specimen): Not recorded (1053).

Distribution: Cambodia (new record), Malaysia, Vietnam.

Observation: We collected sterile plants of *Smilax inversa* in a transect in Regrowth Line 2 in Kampong Thom. *Smilax inversa* is distinct in having zig-zag stems, curved petioles and the lanceolate leaves greenish on the lower surface.

Smilax lanceifolia Roxb., Fl. Ind. (Roxburgh) 3: 792 (1832); T. Koyama, Fl. Cambodge, Laos & Vietnam 20: 103 (1983); Xinqi & T. Koyama, Fl. China 24: 109 (2000); P. H. Hô, Ill. Fl. Vietnam 3: 492, fig. 9669 (2000).

Local name (Representative specimen): Porpreus (1055).

Distribution: Bhutan, Cambodia, China, NE India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Sikkim, Thailand, Vietnam.

Observation: This species is similar to *S. corbularia* Kunth. in having ovate-lanceolate leaves, but leaves are greenish below while leaves of *S. corbularia* are glaucous below.

Smilax luzonensis C. Presl, Reliq. Haenk. 1: 131 (1827); T. Koyama, Fl. Cambodge, Laos & Vietnam 20: 104 (1983); P. H. Hô, Ill. Fl. Vietnam 3: 491, fig. 9662 (2000).

Local name (Representative specimen): Vor Porpreus (1114).

Distribution: Cambodia, Malaysia, Philippines, Vietnam.

Observation: We collected sterile plants of this spe-

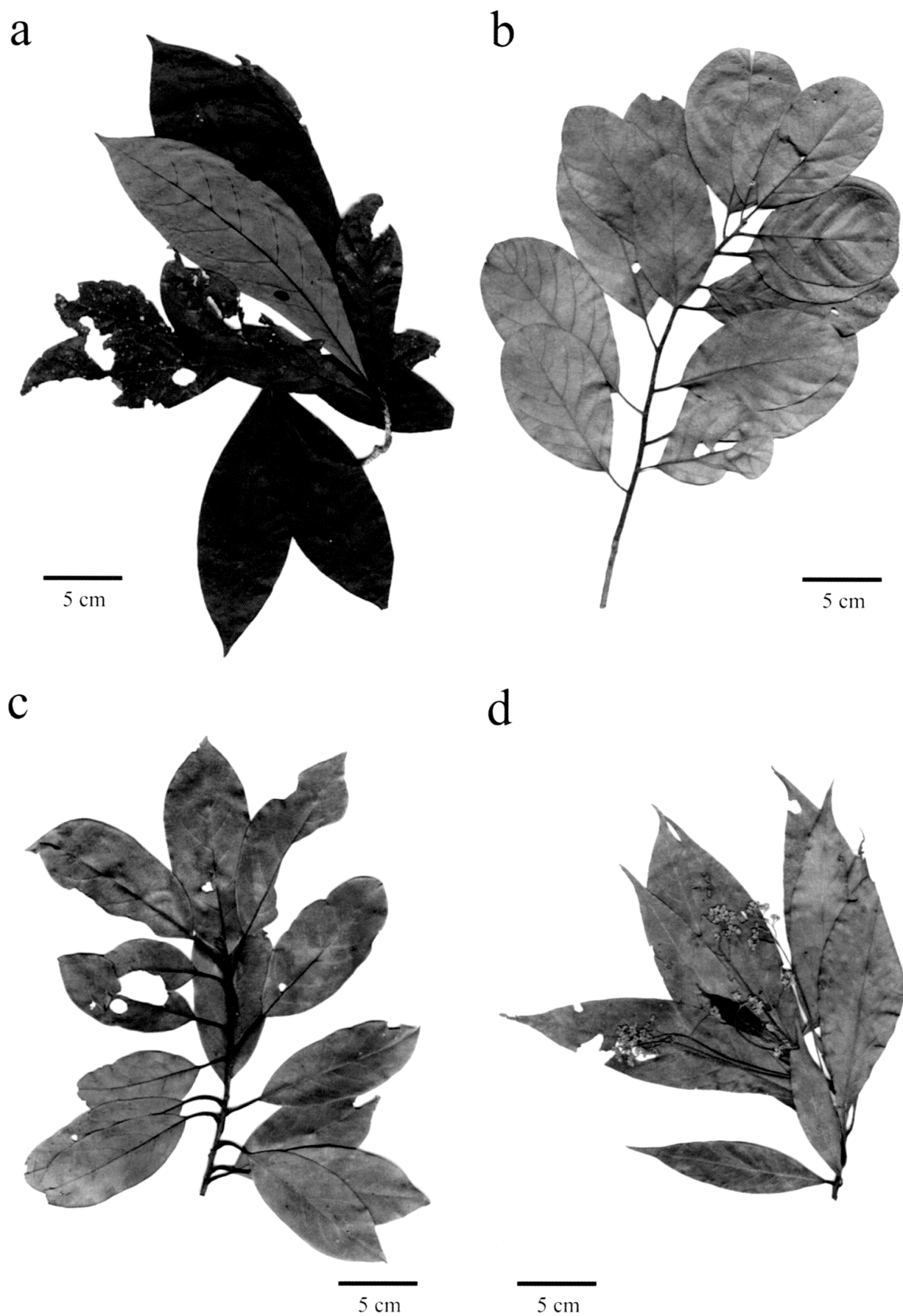


Fig. 5. *Dehaasia*, *Litsea* and *Phoebe*, Lauraceae. a: *Dehaasia cuneata* var. *longifolia* (31). b: *Litsea glutinosa* (543). c: *L. vang* (319). d: *Phoebe lanceolata* (350).

cies in a transect placed in open deciduous stands of Kampong Chhnang. This species is distinct in oblong to rounded leaves concave at apex and glaucous beneath.

Smilax megacarpa A. DC., Monogr. Phan. [A. DC. & C. DC.] 1: 186 (1878); T. Koyama, Fl. Cambodge, Laos & Vietnam 20: 100 (1983); Xinqi & T. Koyama, Fl. China 24: 111 (2000); P. H. Hô, Ill. Fl. Vietnam 3: 491, fig. 9663 (2000).

Local name (Representative specimen): Vor Porpreus (111).

Distribution: India, Cambodia, China, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: We collected sterile plants of this species in an evergreen plot KT25–28. Our collection is very similar to *S. aspericaulis* Wall. ex A. DC. in having elliptic leaves with a short projecting tip. However, we considered our collection as a narrow-leaved form of *S. megacarpa* because stems are smooth and we collected our specimen in the lowland forest while *S. aspericaulis* has been recorded in higher places of China, India, Myanmar and Northern Vietnam.

75. Asparagaceae

Dracaena angustifolia (Medik.) Roxb., Hort. Bengal. 24 (1814); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 798 (1934); P. H. Hô, Ill. Fl. Vietnam 3: 737, fig. 10713 (2000).

Terminalis angustifolia Medik., Theodora: 83 (1786).

Local name (Representative specimen): Konkum (101).

Distribution: Cambodia, Laos, Vietnam.

Observation: We collected this species in an evergreen plot KT25–28. This species is also recorded in the transect placed within KT 21–22.

76. Arecaceae

Calamus salicifolius Becc., Rec. Bot. Surv. India 2: 206 (1902); Conrard, Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 1038 (1937); P. H. Hô, Ill. Fl. Vietnam 3: 421, fig. 9387 (2000).

Local name (Representative specimen): Ropeak (441).

Distribution: Cambodia, Vietnam.

Observation: We collected this species in open deciduous forest of Kampong Thom.

Calamus tetradactylus Hance, J. Bot. 13: 289 (1875); Conrard, Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 1046 (1937); P. H. Hô, Ill. Fl. Vietnam 3: 421, fig. 9388 (2000); Pei *et al.*, Fl. China 23: 140 (2010).

Calamus cambojensis Becc., Webbia 3: 232 (1910); Conrard, Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 1040 (1937); P. H. Hô, Ill. Fl. Vietnam 3: 420, fig. 9383 (2000).

Local name (Representative specimens): No name (99, 1040).

Distribution: Cambodia, China, Laos, Thailand, Vietnam.

Observation: We collected this species in evergreen forest of Kampong Thom; 99 in KT25–28 and 1040 in the transect placed within RG13.

Calamus viminalis Willd., Sp. Pl., ed. 4 [Willdenow] 2: 203 (1799); Conrard, Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 1044 (1937); P. H. Hô, Ill. Fl. Vietnam 3: 422, fig. 9389 (2000); Pei *et al.*, Fl. China 23: 141 (2010).

Local name (Representative specimens): Pdav Krek (159, 1047).

Distribution: Bangladesh, Cambodia, China, India, Indonesia (Bali, Java, Sumatra), Laos, Malaysia (Peninsular), Myanmar, Thailand, Vietnam.

Observation: We collected this species in dry deciduous forest of Kampong Chhnang (159) and in the transect placed within RG13 of Kampong Thom (1047).

Caryota sympetala Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 6: 970 (1937) & Notul. Syst. (Paris) 6: 151 (1937); P. H. Hô, Ill. Fl. Vietnam 3: 411, fig. 9346 (2000).

Local name (Representative specimen): Anse (916).

Distribution: Cambodia, Laos, Vietnam.

Observation: We collected this species in the transect placed within KT 21–22.

112. Menispermaceae

Hypserpa nitida Miers, Hooker's J. Bot. Kew Gard. Misc. 3: 258 (1851); Forman, Fl. Thailand 5: 309 (1991); P. H. Hô, Ill. Fl. Vietnam 1: 335, fig. 1343 (1999); Luo *et al.*, Fl. China 7: 11 (2008).

Limacia cuspidata Hook.f. & Thomson, Fl. Ind. [Hooker f. & Thomson] 1: 189 (1855); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 152 (1908).

Local name (Representative specimen): Vor Yeav (1054).

Distribution: Bangladesh, Cambodia (new record), China, India (Assam), Indonesia, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand.

Observation: We collected this vine in the transect placed within RG13.

Pachygone dasycarpa Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 39: 62 (1870); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 152 (1908); Forman, Fl. Thailand 5: 356 (1991); P. H. Hô, Ill. Fl. Vietnam 1: 340, fig. 1366 (1999).

Local name (Representative specimen): Vor Chitey (883).

Distribution: Cambodia, Myanmar, Thailand, Vietnam.

Observation: We collected this species in the transect placed within KT 21–22.

124. **Dilleniaceae**

Dillenia aurea Sm., Exot. Bot. 2: 65, t. 92 (1806); Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 21 (1907); Hoogland, Fl. Thailand 2: 98 (1972).

Local name (Representative specimen): Phlou Thom (184).

Distribution: Cambodia, India, Laos, Myanmar, Thailand.

Observation: This is a tall tree rarely found in deciduous plots of Kampong Chhnang; we found one tree in Plot SB02.

Dillenia hookeri Pierre, Fl. Forest. Cochinch.: t. 5 (1880); Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 20 (1907); Hoogland, Fl. Thailand 2: 102 (1972); P. H. Hô, Ill. Fl. Vietnam 1: 405, fig. 1628 (1999); Dy Phon, Pl. Util. Cambod.: 232 (2000).

Local name (Representative specimens): Phlou Bat (437, 531).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a shrub usually less than 1 m, growing in open habitats near swamps of Kampong Thom.

Dillenia indica L., Sp. Pl. 1: 535 (1753); Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 21 (1907); Hoogland, Fl. Thailand 2: 103 (1972); P. H. Hô, Ill. Fl. Vietnam 1: 405, fig. 1629 (1999); Dy Phon, Pl. Util. Cambod.: 232 (2000); Zhang & Kubitzki, Fl. China 12: 332 (2007).

Local name (Representative specimens): Phlou (Phlu, 83, 270, 987 [fr]).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree occasionally found in secondary forests (83, 270) or deciduous (dry dipterocarp) forest (987) of Kampong Thom. There was one base substitution in *matK* sequences between specimen 83 and 270.

Dillenia ovata Wall., Fl. Ind. [Hooker f. & Thomson]: 70 (1855); Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 22 (1907); Hoogland, Fl. Thailand 2: 102 (1972); P. H. Hô, Ill. Fl. Vietn. 1: 405, fig. 1630 (1999).

Local name (Representative specimen): Phlou (362).

Distribution: Cambodia, India, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree rarely found in evergreen stands of Kampong Thom; we collected only one specimen in the vicinity of KT32.

Tetracera indica (Christm. & Panz.) Merr., Interpr. Herb. Amboin.: 367 (1917); Hoogland, Fl. Thailand 2: 107

(1972); P. H. Hô, Ill. Fl. Vietnam 1: 407, fig. 1635 (1999); Dy Phon, Pl. Util. Cambod.: 601 (2000).

Tetracera assa DC., Syst. Nat. [Candolle] 1: 402 (1817); Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 14 (1907).

Local name (Representative specimen): Vor Dohkun (308).

Distribution: Cambodia, China, India, Indonesia, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a woody vine climbing up to the canopy of evergreen forests in Kampong Thom.

Tetracera loureiroi (Finet & Gagnep.) Pierre ex Craib, Bull. Misc. Inform. Kew 1922: 165 (1922); Hoogland, Fl. Thailand 2: 107 (1972); P. H. Hô, Ill. Fl. Vietnam 1: 407, fig. 1636 (1999).

Tetracera sarmentosa (L.) Vahl var. *loureiroi* Finet & Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 16 (1907).

Local names (Representative specimens): Vor Druskun (86), Vor Dohkun (138).

Distribution: Cambodia, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a woody vine found in secondary forests. We collected this species in a regrowth plot of Kampong Thom (RG01) and a deciduous plot of Kampong Chhnang (SB02).

144. **Fabaceae**

Abrus pulchellus Wall. ex Thwaites, Enum. Pl. Zeyl. [Thwaites]: 91 (1859).

subsp. *mollis* (Hance) Verdc., Kew Bull. 24: 248 (1970); Thuan *et al.*, Fl. Cambodge, Laos & Vietnam 23: 55 (1987); Li *et al.*, Fl. China 10: 194 (2010).

Abrus mollis Hance, J. Bot. 9: 430 (1871); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 360 (1916); P. H. Hô, Ill. Fl. Vietnam 1: 890, fig. 3567 (1999).

Local name (Representative specimen): Vor Ampil (1050).

Distribution: Cambodia, China, Indonesia, Laos, Malaysia, Papua New Guinea, Thailand, Vietnam.

Observation: This species is a woody vine sporadically found in secondary forest of Kampong Thom. We collected this species in the transect placed within RG13.

Acacia pennata Willd., Sp. Pl., ed. 4 [Willdenow] 4: 1092 (1806); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 83 (1913); P. H. Hô, Ill. Fl. Vietnam 1: 826, fig. 3317 (1999) [as ssp. *kerrii* I. C. Nielsen]; Dy Phon, Pl. Util. Cambod.: 5 (2000) [as ssp. *kerrii* I. C. Nielsen]; Li *et al.*, Fl. China 10: 58 (2010).

Mimosa pennata L., Sp. Pl., 1: 522 (1753).

subsp. *insuavis* (Lace) I. C. Nielsen, Adansonia, ser. 2, 19 (3): 353 (1980); Fl. Cambodge, Laos & Vietnam 19: 68 (1981).

Acacia insuavis Lace, Bull. Misc. Inform. Kew 1915: 401 (1915).

Local names (Representative specimens): Vor Em (22), Chheu Em (556 [fr]), not recorded (895), Vor Kantrek (1051).

Distribution: Bhutan, Cambodia, China, India, Laos, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This species is a woody vine common in Kampong Thom and Kampong Chhnang, often growing up to a tree. This species is distinguished from *A. megaladena* Desv., that is found in Ratanakiri, Cambodia (Nielsen 1981), in the position of a petiolar gland; situated in the lower half of the petiole in *A. pennata*, but in the middle of the petiole in *A. megaladena*. *A. pennata* is a polymorphic species and Nielsen (1981) recognized four subspecies. Subsp. *insuavis* is similar to subsp. *hainanensis* (Hayata) I. Nielsen, distributed in Vietnam, in having leaflets acute at apex and sessile at base. While reddish glandular hairs cover young stems and inflorescences of subsp. *hainanensis*, subsp. *insuavis* has only scattered glandular hairs there. While our collections are identified as subsp. *insuavis* under the classification of Nielsen, those are polymorphic in DNA sequences: for *rbcl*, 556 differs at one base from others; for *matK*, 1051 differs at one base from others.

Adenanthera pavonina L., Sp. Pl. 1: 384 (1753); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 66, fig. 1 (1913); I. C. Nielsen, Fl. Cambodge, Laos & Vietnam 19: 14 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 817, fig. 3279 (1999); Dy Phon, Pl. Util. Cambod.: 8 (2000).

Local name (Representative specimen): Khsev (61 [KT24-tree 01]).

Distribution: Australia, Bangladesh, Brunei, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Papua New Guinea, Solomon Islands, Sri Lanka, Thailand, Vietnam.

Observation: This species is rarely found in evergreen stands of Kampong Thom. Two varieties, var. *pavonia* and var. *microsperma* (Teyse & Binn.) I. Nielsen, are distinguished by floral traits (Nielsen 1981). Both varieties occur in Cambodia (Lecomte 1914), but we could not identify our sterile specimen at the variety level.

Albizia corniculata (Lour.) Druce, Bot. Soc. Exch. Club Brit. Isles 4: 603 (1917); I. C. Nielsen, Fl. Cambodge, Laos & Vietnam 19: 98 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 828, fig. 3326 (1999); Dy Phon, Pl. Util. Cambod.: 19 (2000); Li *et al.*, Fl. China 10: 62 (2010).

Mimosa corniculata Lour., Fl. cochinch. 2: 651 (1790).

Albizia millettii Benth., London J. Bot. 3: 89 (1844); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 90 (1913).

Local name (Representative specimen): Vor Kantrek (429).

Distribution: Brunei, Cambodia, China, Indonesia,

Laos, Malaysia, Philippines, Thai-land, Vietnam.

Observation: This is a climbing shrub found in secondary forest of Kampong Thom. Among Cambodian species of *Albizia*, *A. corniculata* and *A. myriophylla* Benth. are climbing shrubs. While *A. myriophylla* has 8–20 pinnae with more and smaller leaflets less than 0.4–0.8 cm long, *A. corniculata* has 3–4 pinnae with fewer and larger leaflets 1.0–2.0 cm long.

Bauhinia bracteata (Benth.) Graham ex Baker, Fl. Brit. India [J. D. Hooker]. 2: 282 (1878); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 149 (1913); K. Larsen *et al.* Fl. Cambodge, Laos & Vietnam 18: 176 (1980); P. H. Hô, Ill. Fl. Vietnam 1: 858, fig. 3442 (1999).

Local name (Representative specimen): Vor Khlenpor (930).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: We collected sterile plants of this species in the margin of evergreen forest near KT21–24. The leaves of this species are similar to *B. bassacensis* but two species can be distinguished in leaves as follows; a pair of innermost veins run just inside the central vein and the inner margin of bifurcated leaf in *B. bassacensis* but those are apart from the central vein and the inner margin of bifurcated leaf, ascending to the twin tips of the leaf in *B. bracteata*.

Dalbergia cochinchinensis Pierre ex Laness., Pl. Util. Col. Franc. 289 (1886); Pierre, Fl. Forest. Cochinch. 24: t. 382 B (1898); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 482 (1916); P. H. Hô, Fl. Ill. Vietnam 1: 885, fig. 3546 (1999); Niyomdham *et al.*, Fl. Cambodge, Laos & Vietnam 29: 21 (1997); Dy Phon, Pl. Util. Cambod.: 218 (2000).

Dalbergia cambodiana Pierre, Fl. Forest. Cochinch.: t. 383 A (1898); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 496 (1916).

Local names (Representative specimens): Kronong (85), Kror Nhong (370, 401).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tall tree growing in secondary stands of Kampong Thom. We collected this species in three regrowth plots, RG01, 11, and 12. Wood of this species is used for luxury including furniture and the trees are frequently illegally logged.

Dalbergia nigrescens Kurz, Prelim. Rep. Forest Pegu, App. A: 48 & B: 45 (1875); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 494 (1916); P. H. Hô, Fl. Ill. Vietnam 1: 885, fig. 3548 (1999); Niyomdham *et al.*, Fl. Cambodge, Laos & Vietnam 29: 24 (1997).

Dalbergia nigrescens Kurz var. *saigonensis* (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 494 (1916); Dy Phon, Pl. Util. Cambod.: 220 (2000).

Dalbergia lanceolaria L.f. subsp. *paniculata* (Roxb.)

Thoth., Bull. Bot. Surv. India 25: 171 (1983 publ. 1985).

Local names (Representative specimens): Snuai (164), Snoul (205).

Distribution: Cambodia, India, Laos, Myanmar, Nepal, Thailand, Vietnam.

Observation: This is a small tree occasionally found in a deciduous plot SB02 of Kapong Chhnang. Niyomdham *et al.* (1997) distinguished three varieties and reported that var. *anomala* (Pierre) Niyomdham was collected in five provinces including Kampong Thom and var. *saigonensis* was collected in Siem Reap. Var. *anomala* has wider and thicker fruits. We need to collect fruiting specimens to identify the plants of Kampong Thom in the variety level.

Dalbergia thorelii Gagnep., Notul. Syst. (Paris) 2: 297 (1913); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 480, fig. 45 (1916); P. H. Hô, Fl. Ill. Vietnam 1: 879, fig. 3521 (1999).

Local names (Representative specimens): Vor Ampil (1033), Angkrem Angkrom (1105).

Distribution: Cambodia, Laos, Thailand.

Observation: This is a climbing shrub found in secondary forest of Kampong Thom and Kampong Chhnang.

Dalbergia velutina Benth., Pl. Jungh. [Miquel] 2: 255 (1852); Niyomdham *et al.*, Fl. Cambodge, Laos & Vietnam 29: 48 (1997); P. H. Hô, Fl. Ill. Vietnam 1: 884, fig. 3542 (1999).

Dalbergia pierreana Prain, Ann. Roy. Bot. Gard. (Calcutta) 10 (1): 72, pl. 52 (1904); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 500 (1916); P. H. Hô, Fl. Ill. Vietnam 1: 1111, fig. 3153 (1991).

Dalbergia abbreviata Craib, Bull. Misc. Inform. Kew 1926: 166 (1926).

Local name (Representative specimen): no local name (166), Vor Ampul (Niyomdham *et al.* 1997).

Distribution: Bangladesh, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Observation: This species is a woody vine climbing up to 15 m found in a deciduous plot SB2 of Kapong Chhnang. Among three varieties recognized by Niyomdham *et al.* (1997), var. *velutina* is the only variety native to Cambodia.

Dendrolobium lanceolatum (Dunn) Schindl., Repert. Spec. Nov. Regni Veg. 20: 278 (1924); H. Ohashi, Ginkgoana 1: 63, fig. 19 (1973); Dy Phon *et al.*, Fl. Cambodge, Laos & Vietnam 27: 20 (1994); Dy Phon, Pl. Util. Cambodia: 226 (2000); Huang & H. Ohashi, Fl. China 10: 263 (2010).

Lespedeza lanceolata Dunn, J. Linn. Soc., Bot. 35: 488 (1903).

Local name (Representative specimen): Tronum

Bang Kuoy (399).

Distribution: Cambodia, China, Laos, Thailand, Vietnam.

Observation: This is a small shrub usually less than 1 m tall. We collected this species along the margin of secondary forest between regrowth plots RG11 and RG12.

Dialium cochinchinense Pierre, Fl. Forest. Cochinch.: t. 384A (1898); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 205, fig. 45 (1913); P. H. Hô, Fl. Ill. Vietnam 1: 846, fig. 3397 (1999); K. Larsen *et al.*, Fl. Thailand 4: 85 (1984); Dy Phon, Pl. Util. Cambod.: 230 (2000).

Local names (Representative specimens): Kro Lagn (68), Kro Lanh (406), not recorded (958).

Distribution: Brunei, Cambodia, Indonesia, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a tall tree occasionally found in evergreen plots of Kampong Thom.

Dunbaria longiracemosa Craib, Bull. Misc. Inform. Kew 1910: 277 (1910); Gagnep. Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 289 (1913); P. H. Hô, Ill. Fl. Vietnam 1: 968, fig. 3877 (1999); Thuan, Fl. Cambodge, Laos & Vietnam 17: 128 (1979).

Local name (Representative specimen): Vor Cha (985).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: We collected a sterile plant of this vine in a deciduous plot KT14. This species is characteristic of elliptic leaflets obtuse at apex.

Erythrophleum teysmannii (Kurz) Craib, Fl. Siam. 1: 540 (1928).

Erythrophleum cambodianum (Pierre) Gagnep., Notul. Syst. (Paris) 2: 111 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 118 (1913).

Local name (Representative specimen): Treas (998).

Distribution: Cambodia, Thailand.

Observation: This is a shrub occasionally found in secondary forests of Kampong Thom.

Hegnere obcordata (Miq.) Schindl., Repert. Spec. Nov. Regni Veg. 20: 285 (1924); H. Ohashi, Ginkgoana 1: 257 (1973); Dy Phon *et al.*, Fl. Cambodge, Laos & Vietnam 27: 60 (1994); Dy Phon, Pl. Util. Cambod.: 336 (2000). *Uraria obcordata* Miq., Fl. Ned. Ind., Eerste Bijv. 2: 305 (1861).

Desmodium obcordatum (Miq.) Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 42 (4): 229 (1874); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 594 (1920); P. H. Hô, Ill. Fl. Vietnam 1: 922, fig. 3697 (1999).

Local name (Representative specimen): Vor Bekph-seng (404).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a small vine usually less than 1

m tall. We collected this species in open place near plot RG12 of Kampong Thom.

Indigofera wightii Graham, Numer. List [Wallich] n. 5458 (1831); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 434 (1916); Thuan *et al.*, Fl. Cambodge, Laos & Vietnam 23: 88 (1987); P. H. Hô, Ill. Fl. Vietnam 1: 914, fig. 3664 (1999).

Local name (Representative specimen): Trom Prey (990).

Distribution: Cambodia, India, Laos, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: We collected sperile plants of this shrub species in a deciduous plot KT14. Among shrub species of *Indigofera*, this species is distinct in having more than 20 leaflets.

Peltophorum dasyrrhachis (Miq.) Kurz, J. Asiat. Soc. Bengal 45 (2): 293 (1876); Baker, Fl. Brit. India [J. D. Hooker] 2: 257 (1878); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 191 (1913); Larsen *et al.*, Fl. Cambodge, Laos & Vietnam 18: 60 (1980); Larsen *et al.*, Fl. Thailand 4: 54 (1984); P. H. Hô, Ill. Fl. Vietnam 1: 839, fig. 3368 (1999); Dy Phon, Pl. Util. Cambod.: 492 (2000).

Caesalpinia dasyrachis Miq., Fl. Ned. Ind., Eerste Bijv. 2: 292 (1861).

Local name (Representative specimens): Trosek (Trosek, Tasek; 82, 182, 208, 293).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree common in regrowth plots of Kampong Thom and community forest plots of Kampong Chhnang. According to Larsen *et al.* (1980), the following two varieties are recognized and both are collected in Kampong Thom.

A. Bracts present on inflorescences elderly; stipules pinnatifid var. *dasyrrachis*

A. Bracts very early caducous; stipules linear var. *tonkinensis* (Pierre) K. & S. S. Larsen

Our collections are identified as var. *dasyrrachis*.

Phyllodium vestitum Benth., Pl. Jungh. [Miquel]: 217 (1852); H. Ohashi, Ginkgoana 1: 279 (1973); Dy Phon *et al.*, Fl. Cambodge, Laos & Vietnam 27: 34 (1994); Dy Phon, Pl. Util. Cambod.: 499 (2000).

Desmodium vestitum (Benth.) Benth. ex Baker, Fl. Brit. India [J. D. Hooker] 2: 162 (1876); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 566 (1920); P. H. Hô, Ill. Fl. Vietnam 1: 918, fig. 3680 (1999).

Local name (Representative specimens): Tronum Bang Kuoy (391, 396).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This species is a shrub or a small tree often growing up to 5–7 m. We collected this species in

secondary forest of Kampong Thom; between regrowth plots RG11 and RG12. This species is distinguished from other *Phyllodium* in having obtuse leaf tip. Local people often do not distinguish this species from *Dendrobium lanceolatum*, calling both 'Tronum Bang Kuoy'. This species has much larger leaves than *D. lanceolatum*; terminal leaflets are obovate to oblong, 6–12 × 3–6 cm.

Pterocarpus macrocarpus Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 43: 187 (1874); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916); P. H. Hô, Ill. Fl. Vietnam 1: 890, fig. 3565 (1999); Dy Phon, Pl. Util. Cambod.: 515 (2000).

Pterocarpus pedatus (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

Lingoum cambodianum Piere, Fl. Forest. Cochinch.: 5 (24): pl. 383 B (1898).

Pterocarpus cambodianus (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

P. cambodianus var. *glaucinus* (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

P. cambodianus var. *gracilis* (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

P. cambodianus var. *parvifolius* (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

P. macrocarpus Kurz var. *oblongus* (Pierre) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 465 (1916).

Local name (Representative specimens): Thnong (Thnong; 148, 183, 210, 384 [fl, cultivated], 534, 882 [fr, cultivated]).

Distribution: Cambodia, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree found in secondary stands of Kampong Thom (148) and Kampong Chhnang (210, 534). This species is similar to *P. indicus*, a widely cultivated species, but is distinguished as follows.

A. Leaflets have 8–10 pairs of secondary veins, dark brown to blackish upon drying, a terminal extension of the midrib early lapse; inflorescence in axillary or terminal panicles; fruits brown to blackish, hairy, not exceeding 7 cm in diameter *P. indicus*

A. Leaflets have 11–17 pairs of secondary veins, greyish to brownish upon drying, a terminal extension of the midrib persists long enough; inflorescences usually in axillary clusters; fruits brownish to reddish, very densely hairy when young then glabrescent, 7–10 cm in diameter *P. macrocarpus*

Sindora siamensis Teijsm. ex Miq., Ann. Mus. Bot. Lugduno-Batavi 3: 86 (1867); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 215, fig. 21 (1913); K. Larsen *et al.*, Fl. Cambodge, Laos & Vietnam 18: 124 (1980); K. Larsen *et al.*, Fl. Thailand 4: 99 (1984); P. H. Hô, Ill. Fl. Vietnam 1: 867, fig. 3480–81 (1999); Dy Phon, Pl. Util. Cambod.: 560 (2000).

Sindora cochinchinensis Baill., *Adansonia* 10: 104 (1871); Gagnep., *Fl. Indo-Chine* [P. H. Lecomte *et al.*] 2: 213, fig. 21 (1913).

Local name (Representative specimens): Kokoh (Kro Koh; 47, 213, 296, 465, 932 [fr]).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Observation: This is a tall tree widely found in evergreen and deciduous plots of Kampong Thom and deciduous plots of Kampong Chhnang. This species includes two distinct varieties, var. *siamensis* and var. *maritima* (Pierre) K. & S. S. Karsen; the former has smooth pods, while the latter has pods covered with prickles. Fallen pods showed that both are found in Kampong Thom, but we could not distinguish them in our sterile collections except for 932 in which young fruits have prickles.

Spatholobus acuminatus Benth., *Pl. Jungh.* [Miquel]: 238 (1852); P. H. Hô, *Ill. Fl. Vietnam* 1: 942, fig. 3777 (1999).

Local name (Representative specimen): Vor Ta An (917).

Distribution: Bangladesh, Cambodia (new record), India, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: We collected a sterile plant of this vine in an evergreen plot KT22. This species is similar to *S. harmandii* Gagnep. in having symmetric lateral leaflets but distinguished by the narrowly acuminate leaf tip.

Spatholobus parviflorus Kuntze, *Revis. Gen. Pl.* 1: 205 (1891); Thuan, *Fl. Cambodge, Laos & Vietnam* 17: 102 (1979); P. H. Hô, *Ill. Fl. Vietnam* 1: 943, fig. 3780 (1999); Dy Phon, *Pl. Util. Cambod.*: 565 (2000); Chen *et al.*, *Fl. China* 10: 220 (2010).

Butea parviflora Roxb., *Hort. Bengal.*: 53 (1814).

Spatholobus roxburghii Benth., *Pl. Jungh.* [Miquel]: 238 (1852); Gagnep., *Fl. Indo-Chine* [P. H. Lecomte *et al.*] 2: 443 (1916).

Local name (Representative specimen): Vor Khnhe (173).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This is a woody vine climbing up to canopy. We collected this species in the vicinity of a community forestry plot SB02.

Tadehagi godefroyanum (Kuntze) H. Ohashi, *Ginkgoana* 1: 284 (1973); Dy Phon, *Pl. Util. Cambod.*: 592 (2000); Dy Phon *et al.*, *Fl. Cambodge, Laos & Vietnam* 27: 50 (1994). *Meibomia godefroyana* Kuntze, *Revis. Gen. Pl.* 1: 196 (1891); Gagnep., *Fl. Indo-Chine* [P. H. Lecomte *et al.*] 2: 608 (1920).

Desmodium godefroyanum Kuntze ex Craib, *Fl. Siam.* 1: 407 (1928); P. H. Hô, *Ill. Fl. Vietnam* 1: 927, fig. 3717 (1999).

Droogmansia godefroyana (Kuntze) Schindl., *Repert. Spec. Nov. Regni Veg.* 20: 274 (1924).

Local name (Representative specimen): Bay Tun (410).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small, erect shrub up to 2 m, growing along roadside or in edge of open deciduous forest in Kampong Thom.

Tadehagi triquetrum (L.) H. Ohashi, *Ginkgoana* 1: 296 (1973); Dy Phon *et al.*, *Fl. Cambodge, Laos & Vietnam* 27: 50 (1994); Dy Phon, *Pl. Util. Cambod.*: 592 (2000); Huang & H. Ohashi, *Fl. China* 10: 284 (2010).

Hedysarum triquetrum L., *Sp. Pl.* 2: 746 (1753).

Desmodium triquetrum (L.) DC., *Prodr.* [A. P. de Candolle] 2: 326 (1825); Gagnep., *Fl. Indo-Chine* [P. H. Lecomte *et al.*] 2: 607 (1920); P. H. Hô, *Ill. Fl. Vietnam* 1: 920, fig. 3686–87 (1999).

Pteroloma triquetrum (L.) Desv. ex Benth., *Pl. Jungh.* [Miquel] 220 (1852).

Local name (Representative specimen): Chhke Prey (491).

Distribution: Australia, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, New Caledonia, Papua New Guinea, Philippines, Sri Lanka, Taiwan, Thailand, Vietnam.

Observation: This is a small shrub or perennial usually less than 70 cm. We collected this species in open place in the vicinity of an evergreen plot of Kampong Thom; KT05–08.

Xylia xylocarpa (Roxb.) W. Theob., *Burmah* [Mason], ed. 3. 2: 541 (1883); Taub., *Bot. Centralbl.* 67: 395 (1891); I. C. Nielsen, *Fl. Cambodge, Laos & Vietnam* 19: 30 (1981); Mabb., *Taxon* 34 (1): 155 (1985); P. H. Hô, *Ill. Fl. Vietnam* 1: 818, fig. 3286 (1999); Dy Phon, *Pl. Util. Cambod.*: 638 (2000).

Mimosa xylocarpa Roxb., *Pl. Coromandel* 1: 68, t. 100 (1798).

Xylia dolabriformis Benth., *J. Bot.* (Hooker) 4: 417 (1842); Gagnep., *Fl. Indo-Chine* [P. H. Lecomte *et al.*] 2: 72, fig. 21 (1913).

var. *kerrii* (Craib & Hutch.) I. C. Nielsen, *Adansonia*, ser. 2, 19 (3): 344 (1980); *Fl. Cambodge, Laos & Vietnam* 19: 31 (1981).

Local name (Representative specimens): Sok Rom (Sok Ram; 143, 170 [fr], 223, 422).

Distribution: Bangladesh, Cambodia, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree occasionally found in secondary forests. We collected this species in community forest plots SB2 (143, 170) and SB8 (223) of Kampong Chhnang and in a regrowth plot RG12 (422) of Kampong Thom. Var. *kerrii* is distinguished from var. *xylocarpa*, distributed in India and Myanmar, by more densely hairy leaflets and anthers lacking glands.

146. **Polygalaceae**

Xanthophyllum colubrinum Gagnep., Bull. Soc. Bot. France 56: 35 (1909); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 244 (1909); P. H. Hô, Ill. Fl. Vietnam 2: 356, fig. 5383 (2003).

Local name (Representative specimens): Trob Tom (32, 238, 352).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tall tree widely found in evergreen plots of Kampong Thom. This species is characteristic of lustrous leaves undulate along margin.

Xanthophyllum flavescens Roxb., Pl. Coromandel 3: 82, t. 284 (1820); Pendry, Fl. Thailand 7: 529 (2001); P. H. Hô, Ill. Fl. Vietnam 2: 357, fig. 5386 (2003); K. M. Matthew, Blumea 49: 402 (2004); S. K. Chen *et al.*, Fl. China 11: 140 & fig. 190 (2008).

Xanthophyllum affine Korth. ex Miq. Ann. Mus. Bot. Lugduno-Batavi 1: 271 (1864).

Xanthophyllum siamense Craib, Bull. Misc. Inform. Kew 1922: 236 (1922).

Local name (Representative specimen): Kdouch (444).

Distribution: Bangladesh, Cambodia, China (Yunnan), India, Indonesia, Laos, Malaysia, Myanmar, New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a tall tree common in some evergreen plots of Kampong Thom; KT01–4, KT5–8, and KT9–12. Compared to *X. colubrinum*, leaves of this species are thicker and more dense-green colored and leaf margin is not undulate.

151. **Rhamnaceae**

Ventilago harmandiana Pierre, Fl. Forest. Cochinch.: t. 313a (1895); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 910 (1912); P. H. Hô, Ill. Fl. Vietnam 2: 441, fig. 5728 (2003).

Local names (Representative specimens): Vor Chhke Vongveng (889), Vor Talinh (918).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a woody vine that was collected only in an evergreen plot of Kampong Thom; KT21–22.

Ziziphus cambodianus Pierre, Fl. Forest. Cochinch.: t. 315a (1894); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 922 (1912); Dy Phon, Pl. Util. Cambod.: 645 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 443, fig. 5736 (2003).

Local name (Representative specimen): Ang Krong (134).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a small shrub usually less than 1.7 m tall, occasionally found in open deciduous forest of Kampong Chhnang. We collected this species in a com-

munity forest plot SB02. This species is characterized by relatively larger leaves (4–8 × 2.5–5.5 cm) slightly asymmetrical at the base, reddish when young and light green when expanded, curved spines on branches, and big fruits (1.8–2 × 1.8 cm).

Ziziphus oenopolia (L.) Mill., Gard. Dict., ed. 8., Ziziphus no. 3 (1768), ('*oenoplia*'); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 920 (1912); Dy Phon, Pl. Util. Cambod.: 646 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 445, fig. 5741 (2003); Chen & Schir., Fl. China 12: 121 (2007).

Rhamnus oenopolia L., Sp. Pl. 1: 194 (1753).

Local name (Representative specimen): Sangkhor (295).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small shrub usually less than 1.7 m tall, occasionally found along the margin of secondary evergreen forest in Kampong Thom. This species is distinguished from *Z. cambodiana* by smaller and narrower leaves (2–6 × 1.5–3 cm), very asymmetric at the base, dark green in color, straight spines on branches, and small fruits (5–7 × 5–6 mm).

152. **Ulmaceae**

Trema orientalis (L.) Blume, Mus. Bot. 2: 62 (1856); Fu *et al.*, Fl. China 5: 13 (2003).

Celtis orientalis L., Sp. Pl. 2: 1044 (1753); P. H. Hô, Ill. Fl. Vietnam 2: 536, fig. 6141 (2003).

Local name (Representative specimens): Srol (88, 492).

Distribution: Australia, Cambodia, China (Yunnan), India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Pacific Islands, Sikhim, Sri Lanka, Thailand, Vietnam.

Observation: This is a widely distributed pioneer tree as *Trema tomentosa* (Roxb.) H. Hara, but was only recently reported from Cambodia (Maxwell 2009); it may have been confused with the latter species in old literature. We collected this species in a regrowth plot RG01 (88) and in a disturbed place near KT07 (492). This species is characterized by lower surface of leaf completely hidden by white hairs. *T. tomentosa* is similar to this species, but lower surface of leaf is less hairy and more greenish.

154. **Moraceae**

Artocarpus chama Buch.-Ham., Mem. Wern. Nat. Hist. Soc. 5: 331 (1826); Mabblerly, Taxon 26: 529 (1977); Wu *et al.*, Fl. China 5: 31 (2003); C. C. Berg *et al.*, Fl. Thailand 10: 483 (2011).

Artocarpus asperulus Gagnep., Bull. Soc. Bot. France 73: 86 (1926); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 734 (1928).

Artocarpus rigidus Blume subsp. *asperulus* (Gagnep.) F. M. Jarrett, J. Arnold Arbor. 41: 154 (1959); Dy Phon, Pl. Util. Cambod.: 52 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 547, fig. 6185 (2003).

Local name (Representative specimens): Khnor Prey (54, 314).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Laos, Malaysia, Myanmar, Sikkim, Thailand, Vietnam.

Observation: This is a tall tree and spreadically found in some evergreen plots of Kampong Thom (KT11, 21, 23, 30 and 32).

Artocarpus nitidus Trécul, Ann. Sci. Nat., Bot. sér. 3, 8: 119 (1847); Wu *et al.*, Fl. China 5: 33 (2003); C. C. Berg *et al.*, Fl. Thailand 10: 493 (2011).

Arthocarpus nitidus subsp. *lingnanensis* (Merr.) F. M. Jarrett, J. Arnold Arbor. 41: 124 (1959); Dy Phon, Pl. Util. Cambod.: 51 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 549, fig. 6191 (2003).

Artocarpus lingnanensis Merr., Lingnan Sci. J. 7: 302 (1931).

Artocarpus sampor Gagnep., Bull. Soc. Bot. France 73: 90 (1926); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 738 (1928).

Local name (Representative specimen): Sampor (157).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Solomon Islands, Thailand, Vietnam.

Observation: This is a tall tree found in an open deciduous stand in the vicinity of a community forestry plot SB02 in Kampong Chhnang.

Ficus hirta Vahl, Enum. Pl. [Vahl] 2: 201 (1805); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 803 (1928); P. H. Hô, Ill. Fl. Vietnam 2: 569, fig. 6270-73 (2003); Wu *et al.*, Fl. China 5: 60 (2003); C. C. Berg & Corner, Fl. Males., Ser. 1, Spermat. 17: 113 (2005); Dy Phon, Pl. Util. Cambod.: 299 (2000); C. C. Berg *et al.*, Fl. Thailand 10: 519 (2011).

Ficus palmatiloba Merr., Philipp. J. Sci. 21: 340 (1922); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 791 (1928).

Local name (Representative specimen): Lovea Dey (303 [fl]).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Myanmar, Nepal, Sikkim, Thailand, Vietnam.

Observation: This is a shrub occasionally found in evergreen stands of Kampong Thom. We collected young trees having dissected leaves in the understory of plot KT21. This is a widely distributed and polymorphic species, and many names have been published for this complex (see Berg & Corner 2005 for a full list of synonyms). Berg and Corner (2005) distinguished 4 subspecies and

the plant of Cambodia is identified as subsp. *hirta*.

Ficus microcarpa L.f., Suppl. Pl.: 442 (1782); P. H. Hô, Ill. Fl. Vietnam 2: 560, fig. 6233 (2003); Wu *et al.*, Fl. China 5: 44 (2003); C. C. Berg & Corner, Fl. Males., Ser. 1, Spermat. 17: 113 (2005); C. C. Berg *et al.*, Fl. Thailand 10: 666 (2011).

Ficus retusa (auct. non L.) Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 764 (1928).

Local name (Representative specimen): Chrey (546).

Distribution: Australia, Bhutan, China, India, Japan, Malaysia, Myanmar, Nepal, New Guinea, Sikkim, Sri Lanka, Thailand, Vietnam.

Observation: This is an evergreen tall tree occasionally found in deciduous stands of Kampong Chhnang. We found one big tree in the vicinity of the community forestry plot SB02.

Streblus asper Lour., Fl. Cochinch. 2: 615 (1790); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 712 (1928); Dy Phon, Pl. Util. Cambod.: 572 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 542, fig. 6162 (2003); Wu *et al.*, Fl. China 5: 28 (2003); C. C. Berg *et al.*, Fl. Thailand 10: 668 (2011).

Diplothorax tonkinensis Gagnep. Bull. Soc. Bot. France 75: 98 (1928).

Local name (Representative specimen): Snai (Snay, 176).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Sikkim, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree 6–10 m tall, occasionally found in the regrowth plot of Kampong Thom and also in an open deciduous stand in the vicinity of the community forestry plot SB02 in Kampong Chhnang.

157. Fagaceae

Castanopsis piriformis Hickel & A. Camus, Bull. Soc. Bot. France 68: 395 (1922); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 1032 (1931); P. H. Hô, Ill. Fl. Vietnam 2: 623, fig. 6488 (2003); Phengklai, Fl. Thailand 9: 227 (2008).

Local name (Representative specimens): Khos (230 [fl], 277 [KT26-tree 25]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tall tree rarely found in some evergreen plots of Kampong Thom; KT26 and KT30.

Lithocarpus harmandii (Hickel & A. Camus) A. Camus, Riviera Sci. 18: 40 (1931); Dy Phon, Pl. Util. Cambod.: 405 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 638, fig. 6547 (2003); Phengklai, Fl. Thailand 9: 295 (2008).

Pasania harmandii Hickel & A. Camus, Ann. Sci. Nat., Bot. sér. 10, 3: 390 (1921); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 973 (1930).

Local name (Representative specimens): Kraing (379 [RG11-tree 17], 419 [fr], 1023 [fr]).

Distribution: Cambodia, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a tall tree rather common in regrowth plots of Kampong Thom. On the other hand, this species is recorded only in one primary evergreen plot (KT02).

167. Cucurbitaceae

Trichosanthes pedata Merr. & Chun, Sunyatsenia 2 (1): 20 & f. 3 (1934); P. H. Hô, Ill. Fl. Vietnam 1: 725, fig. 2012 (1991); Luqi & C. Jeffrey, Fl. China 19: 44 (2011).

Local name (Representative specimen): Trosokkaek (307).

Distribution: Cambodia (new record), China, Vietnam.

Observation: This is a vine found along the margin of evergreen forest in Kampong Thom.

172. Celastraceae

Euonymus cochinchinensis Pierre, Fl. Forest. Cochinch.: t. 309 (1894); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 873 (1912); Dy Phon, Pl. Util. Cambod.: 282 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 146, fig. 4518 (2003); Ding Hou *et al.*, Fl. Thailand 10: 156 (2010).

Local name (Representative specimens): Ko Mouy (Kor Mouy; 51, 393, 397).

Distribution: Cambodia, India (Andaman), Indonesia, Laos, Malaysia (Peninsular), Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tall tree and rarely found in evergreen forests of Kampong Thom (recorded in KT09 and 30).

Loeseneriella pauciflora (DC.) A. C. Sm., Amer. J. Bot. 27: 440 (1941); P. H. Hô, Ill. Fl. Vietnam 2: 158, fig. 4572 (2003); Ding Hou *et al.*, Fl. Thailand 10: 174 (2010).

Hippocratea pauciflora DC. Prodr. [A. P. de Candolle] 1: 569 (1824).

Local name (Representative specimen): Vor Antung (900).

Distribution: Cambodia, Indonesia, Laos, Philippines, Thailand, Vietnam.

Observation: This is a woody vine that we collected only one specimen in an evergreen plot KT21.

Lophopetalum duperreanum Pierre, Fl. Forest. Cochinch.: 20, t. 307A (1894); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 877 (1912); P. H. Hô, Ill. Fl. Vietnam 2: 155, fig. 4562 (2003); Ding Hou *et al.*, Fl. Thailand 10: 176 (2010).

Local name (Representative specimens): Pro Loup (104, 280 [KT26-tree 35], 507, 952 [KT27-tree 08], 1069).

Distribution: Cambodia, Thailand, Vietnam.

Observation: This is a tall tree rather common in evergreen plots of Kampong Thom.

Salacia chinensis L., Mant. Pl. Altera 2: 293 (1771); P. H. Hô, Ill. Fl. Vietnam 2: 158, fig. 4577 (2003); H. Peng & Funston, Fl. China 11: 489 (2008); Ding Hou *et al.*, Fl. Thailand 10: 189 (2010).

Salacia prinoides DC., Prodr. [A. P. de Candolle] 1: 571 (1824); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 905 (1912).

Local names (Representative specimens): Vor Borkveay (999), Pork Veay (1048).

Distribution: Australia, Cambodia, China, Fiji, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Solomon Islands, Sri Lanka, Thailand, Vietnam.

Observation: This is a woody vine. We collected this species in deciduous and regrowth plots of Kampong Thom; KT14 and RG13. This species is similar to *S. rosata* Pierre in having chartaceous leaf with acuminate apex, but leaves are thicker, subcoriaceous and apex is shortly acuminate.

Salacia typhina Pierre, Fl. Forest. Cochinch.: 19, t. 297b & t. 299b (1893); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 903 (1912); P. H. Hô, Ill. Fl. Vietnam 2: 161, fig. 4587 (2003).

Local names (Representative specimens): Tadok Puom (21), Vor Kondropchang E (925, 1038).

Distribution: Cambodia, Vietnam.

Observation: This is a woody vine. We collected this species in the understory of an evergreen plot of Kampong Thom, KT21–22.

174. Connaraceae

Connarus cochinchinensis Pierre, Fl. Forest. Cochinch.: t. 378 (1898); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 54 (1908); J. E. Vidal, Fl. Thailand 2: 130 (1972); Dy Phon, Pl. Util. Cambod.: 171 (2000).

Local names (Representative specimens): Rum Puah (115, 124, 152), Vor Rompoas (390), Vor Chikae Vongveng (1041).

Distribution: Cambodia, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a woody vine found in open deciduous stands in the vicinity of a community forest plot SB02 of Kampong Chhnang and also in secondary stands near RG12.

Ellipanthus tomentosus Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 41 (2): 305 (1872); J. E. Vidal, Fl. Cambodge, Laos & Vietnam 2: 46 (1962); J. E. Vidal, Fl. Thailand 2: 125 (1972); Dy Phon, Pl. Util. Cambod.: 273 (2000).

Local names (Representative specimens): Preah Thlok, misidentified as Semorn or Lo Leav (3, 353, 902, 938 [fr], 1001, 1060 [KT31-tree 45]).

Distribution: Cambodia, Indonesia (Sumatra), Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a small tree found in some ever-

green plots of Kampong Thom (KT21–24, KT31). We collected this species also in a deciduous stand in the vicinity of KT14. This species was identified by local people as ‘Semorn’ in the fieldwork of January 2010, and ‘Lo Leav’ in April 2011. However, ‘Semorn’ is a name for *Nephlium* and ‘Lo Leav’ is a name for a different plant.

Rourea minor (Gaertn.) Alston, Handb. Fl. Ceylon 6 Suppl.: 67 (1931); Leenh. Fl. Males., Ser. 1, Spermat. 5 (4): 514 (1957); J. E. Vidal, Fl. Cambodge, Laos & Vietnam 2: 36 (1962); Keng, Fl. Thailand 2: 122 (1972); Lu & Turland, Fl. China 9: 437 (2003).

Local name (Representative specimen): Chkervong (Chkerveng; 108).

Distribution: Australia, Cambodia, China, Fiji, India, Laos, Malaysia, Myanmar, Samoa, Sri Lanka, Thailand, Vietnam.

Observation: This is a woody vine collected in the vicinity of an evergreen plot of Kampong Thom, KT25–28.

177. **Elaeocarpaceae**

Elaeocarpus petiolatus (Jacq.) Wall., Numer. List [Wallich] 2673 (1831); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 573 (1911); Phengklai, Fl. Thailand 2: 424 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 473, fig. 1900c (1999); Dy Phon, Pl. Util. Cambod.: 270 (2000); Y. Tang & Phengklai, Fl. China 12: 226 (2007).

Monocera petiolata Jack, Malayan Misc. 1 (5): 43 (1820).

Local name (Representative specimen): no local name (520).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: We collected this species in a clearing of evergreen forest near a swamp of Kampong Thom. This species is characterized by having lustrous and glabrous leaves with a petiole 1/3 to half of leaf blade.

Elaeocarpus stipularis Blume, Bijdr. Fl. Ned. Ind. 3: 121 (1825); Phengklai, Fl. Thailand 2: 415 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 474, fig. 1905 (1999); Coode, Kew Bull. 56: 535 (2001).

Elaeocarpus tomentosus Blume, Bijdr. Fl. Ned. Ind. 3: 121 (1825); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 575 (1911).

Local name (Representative specimen): Kong Kang (279 [KT26-tree 28]).

Distribution: Cambodia, India, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This species is a tall tree rarely found in evergreen plots of Kampong Thom; only one individual is recorded in KT26. This species is distinguished from *E. petiolatus* in larger leaves hairy beneath and dark brown upon drying. This is a widely distributed and polymorphic species. Coode (2001) distinguished 8 varieties, and the plant of Cambodia is identified as var. *stipularis*.

180. **Pandaceae**

Microdesmis caseariifolia Planch. ex Hook., Icon. Pl. 8: sub t. 758 (1848); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 460 (1926); P. H. Hô, Ill. Fl. Vietnam 2: 180, fig. 4664 (2003); Li & M. G. Gilbert, Fl. China 11: 162 (2008).

Local name (Representative specimen): no local name (477).

Distribution: Bangladesh, Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: We collected this species in a clearing within an evergreen plot KT09–12.

181. **Rhizophoraceae**

Carallia brachiata (Lour.) Merr., Philipp. J. Sci. 15: 249 (1919); Ding Hou, Fl. Thailand 2: 13 (1971); Dy Phon, Pl. Util. Cambod.: 133 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 114, fig. 4392 (2003); H. N. Qin & Boufford, Fl. China 13: 298 (2007).

Diatoma brachiata Lour., Fl. Cochinch. 1: 296 (1790).

Carallia lucida Roxb., Pl. Coromandel 3: 8 & t. 211 (1811); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 732 (1920).

Local names (Representative specimens): Tro Meng (Tar Morng Touch; 131, 245, 526 [fl], 1092), Tromung Seik (215).

Distribution: Australia, Bhutan, Cambodia, China, India, Indonesia, Laos, Madagascar, Malaysia, Myanmar, Nepal, New Guinea, Pacific islands, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a tree grown up to 10 m and is found in some evergreen plots (KT22, 31 and 32) and regrowth plots (RG08, 10) of Kampong Thom. The *matK* sequences between two locations differ in two bases and thus *C. brachiata* could include two cryptic species.

182. **Erythroxylaceae**

Erythroxylum cambodianum Pierre, Fl. Forest. Cochinch.: t. 282 (1893); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 591 (1911); Dy Phon, Pl. Util. Cambod.: 280 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 307, fig. 5180 (2003).

Local name (Representative specimens): Koh Moan (427 [fl], 1037).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a small shrub found in secondary forests of Kampong Thom. We collected this species in a clearing within KT09–12 and in the understory of a regrowth plot RG13.

184. **Euphorbiaceae**

Agrostistachys indica Dalzell, Hooker's J. Bot. Kew Gard. Misc. 2: 41 (1850); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 465 (1926); P. H. Hô, Ill. Fl. Vietnam 2: 246, fig. 4923 (2003); Chayam. & Welzen, Fl. Thailand 8: 43 (2005).

Local name (Representative specimens): Ro Rang (Rong Rang; 13, 950 [fr]).

Distribution: Cambodia, India, Laos, Malaysia, Myanmar, New Guinea, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small shrub usually less than 1 m. We collected this species in the understory of evergreen plots KT21–24 and KT25–28.

Chaetocarpus castanocarpus (Roxb.) Thwaites, Enum. Pl. Zeyl. [Thwaites] 275 (1861); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 471 (1926); Dy Phon, Pl. Util. Cambod.: 150 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 283, fig. 5076 (2003); Li & M. G. Gilbert, Fl. China 11: 279 (2008); Chayam. & Welzen, Fl. Thailand 8: 153 (2005).

Adelia castanicaarpa Roxb., Fl. Ind. (Roxburgh) 3: 848 (1832).

Local name (Representative specimens): Kom Peth (I [fl], 41, 58, 235, 285 [KT27-tree 29], 347, 385 [fl]).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree up to 10 m and common in evergreen forest plots of Kampong Thom.

Croton poilanei Gagnep., Bull. Soc. Bot. France 68: 559 (1922); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 270 (1925); P. H. Hô, Ill. Fl. Vietnam 2: 245, fig. 4917 (2003); Chayam. & Welzen, Fl. Thailand 8: 216 (2005).

Local name (Representative specimens): Tom Pong (18 [fl], 299 [fl]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small tree up to 10 m, widely distributed in evergreen plots of Kampong Thom.

Croton columnaris Airy Shaw, Kew Bull. 23: 69 (1969); Chayam. & Welzen, Fl. Thailand 8: 200, fig. 46 (2005). Distribution: local name (Representative specimens): Tompong Toch (80, 3862).

Distribution: Cambodia (new record), Thailand.

Observation: This is a small shrub. We collected this species in the vicinity of a deciduous stand SB02 of Kampong Chhnang (80) and in the vicinity of a regrowth plot RG01 in Kampong Thom (3862).

Macaranga griffithiana Müll.Arg., Prodr. [A. P. de Candolle] 15 (2): 998 (1866).

Macaranga triloba auct non (Thunb.) Müll. Arg.; Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 439 (1926); Dy Phon, Pl. Util. Cambod.: 421 (2000); Welzen & Chayam., Fl. Thailand 8: 367 (2007).

Local name (Representative specimen): Pang (515).

Distribution: Cambodia, Indonesia (Sumatra), Laos, Malaysia (Malay Peninsula), Thailand, Vietnam.

Observation: This is a small tree 5–6 m high, characteristic of whitish glaucous twigs and trunks. We collected this species in the edge of a swamp in Kampong Thom.

Mallotus glabriusculus (Kurz) Pax & K. Hoffm., Pflanzenr. (Engler) Euphorb.-Mercurial; 162 (1914); P. H. Hô, Ill. Fl. Vietnam 2: 252, fig. 4945 (2003); S. E. C. Sierra *et al.*, Blumea 52: 65 (2007); Welzen & Chayam., Fl. Thailand 8: 396 (2007).

Local name (Representative specimen): Sraom Dao (24).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a small shrub, 1.5–3 m high. We collected this species in the understory of an evergreen plot KT21–24.

Mallotus nanus Airy Shaw, Kew Bull. 21: 380 (1968); P. H. Hô, Ill. Fl. Vietnam 2: 250, 4943 (no figure) (2003).

Local name (Representative specimen): Sraom Dao (936).

Distribution: Cambodia, Laos.

Observation: This is a small shrub, less than 1 m tall. We collected this species along the forest margin near the plot KT 9–12 and KT21–24.

Mallotus paniculatus Müll.Arg., Linnaea 34: 189 (1865); Dy Phon, Pl. Util. Cambod.: 425 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 253, fig. 4954 (2003); Welzen & Chayam., Fl. Thailand 8: 416 (2007); Qiu & M. G. Gilbert, Fl. China 11: 236 (2008).

Mallotus cochinchinensis Lour., Fl. Cochinch. 2: 635 (1790); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 355 (1925).

Local name (Representative specimens): Pang (351, 493 [fl]).

Distribution: Australia, Bangladesh, Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a small tree up to 10 m tall, rarely found in evergreen stands of Kampong Thom. We collected this species in the vicinity of KT5–8 and KT21–24.

***Mallotus* sp. 1.**

Local name (Representative specimens): Sraom Dao (454, 478).

Observation: We collected sterile specimens of this species in an evergreen plot KT09–12. It is needed to get fertile specimens to identify this species.

***Mallotus* sp. 2.**

Local name (Representative specimen): Phung Ki (1097 [fr]).

Observation: This is a small shrub found in secondary deciduous forest of Kampong Chhnang. This species is in appearance similar to *Thrysanthera suborbicularis* Pierre ex Gagnep., but differ from it in morphology of anthers and fruits. While DNA sequences showed that this is a member of *Mallotus*, we could not find a described species identical with our collection. Further studies are needed to elucidate the identity of this plant.

Suregada glomerulata (Blume) Baill., Étude Euphorb.: 396 (1858); P. H. Hô, Ill. Fl. Vietnam 2: 281, fig. 5071 (2003).

Erythrocarpus glomerulatus Blume, Bijdr. Fl. Ned. Ind. 605 (1826).

Local name (Representative specimens): Tro MOUNG Sek (56 [KT21-tree 09], 265, 1056).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a shrub or small tree up to 12 m, occasionally found in evergreen plots of Kampong Thom.

Suregada multiflora Baill., Étude Euphorb. 396 (1858); Dy Phon, Pl. Util. Cambod.: 574 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 281, fig. 5069 (2003); Welzen & Chayam., Fl. Thailand 8: 565 (2007); Li & Esser, Fl. China 11: 276 (2008).

Local name (Representative specimens): Am Being Charn (116, 212, 538, 1111 [fr], 1122 [fl]).

Distribution: India, Bangladesh, Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a shrub or small tree up to 12 m, occasionally found in deciduous plots of Kampong Chhnang.

Triadica cochinchinensis Lour., Fl. Cochinch. 2: 610 (1790); Welzen & Chayam., Fl. Thailand 8: 573, fig. 91 (2007); Li & Esser, Fl. China 11: 285 (2008).

Sapium cochinchinense (Lour.) Gagnep., Fl. Indo-Chine 5: 401 (1926), nom. illeg.

Sapium discolor (Champ. ex Benth.) Müll.Arg., Linnaea 32: 121 (1863); P. H. Hô, Ill. Fl. Vietnam 2: 286, fig. 5088 (2003).

Local name (Representative specimen): no local name (490).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a small tree rarely found in evergreen plots of Kampong Thom. We collected this species only in KT07.

***Trigonostemon* sp. 1.**

Local name (Representative specimen): Toeudoas (989 [fl, fr]).

Observation: This is a small tree rarely found in deciduous forest of Kampong Thom. This species is similar to *T. reidioides* (Kurz) Craib in that leaves are densely hairy beneath and inflorescences are longer than 5 cm. However, our collection differs from *T. reidioides* in leaves obtuse (not acuminate) at apex and pendulous inflorescences.

***Trigonostemon* sp. 2.**

Local name: Kumpreah (897 [fl]).

Observation: This is a shrub 2–3 m high. We collected this species in the understory of evergreen forest plots KT21–22 in Kampong Thom. This species is similar to *T. verticillatus* Pac in that leaves are crowded on the tips of branchlets and flowers are purplish. However, our collection differs from *T. verticillatus* in having lanceolate leaves with shorter petioles and reddish purple flowers with elliptic petals, lanceolate sepals and longer pedicels.

185. Centroplacaceae

Bhesa robusta (Roxb.) Ding Hou, Blumea, Suppl. 4: 152 (1958); P. H. Hô, Ill. Fl. Vietnam 2: 155, fig. 4560 (2003); J. S. Ma & Funston, Fl. China 11: 479 (2008).

Celastrus robustus Roxb., Fl. Ind. (Carey & Wallich ed.) 2: 395 (1824).

Kurrimia robusta (Roxb.) Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 39 (2): 73 (1870); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 893 (1912).

Local name (Representative specimen): Chambak Kaek (1012).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Singapore, Thailand, Vietnam.

Observation: We collected this shrubby species in the deciduous plot KT13 of Kampong Thom.

187. Ochnaceae

Gomphia serrata (Gaertn.) Kanis, Taxon 16: 422 (1967); Kanis, Fl. Thailand 2: 28 (1970); Dy Phon, Pl. Util. Cambod.: 320 (2000).

Meesia serrata Gaertn., Fruct. Sem. Pl. 1: 344 (1788).

Campylospermum serratum (Gaertn.) Bittrich & M. C. E. Amaral, Taxon 43: 92 (1994); P. H. Hô, Ill. Fl. Vietnam 1: 411, fig. 1654 (1999).

Local names (Representative specimens): Pruesthorn (11), Prustru (72).

Distribution: Cambodia, India, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is a small shrub up to 1.5 m high. This species is rather common in the understory and edge of evergreen forest in Kampong Thom.

Ochna integerrima (Lour.) Merr., Trans. Amer. Philos. Soc. ser. 2., 24 (2): 11, 265 (1935); Kanis, Fl. Thailand 2:

25 (1970); P. H. Hô, Ill. Fl. Vietnam 1: 411, fig. 1652 (1999); Dy Phon, Pl. Util. Cambod.: 475 (2000); Z. X. Zhang & M. C. E. Amaral, Fl. China 12: 362 (2007).

Elaeocarpus integerrimus Lour., Fl. Cochinch.: 412 (1790).

Ochna harmandii Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 706 (1911).

Local name (Representative specimens): Angkea Sil (Angkear Seal, Ankeal Sul; 106, 122, 358 [KT29-tree 53], 544, 1017 [fr], 1102 [fl]).

Distribution: Cambodia, China, India, Laos, Malaysia, Myanmar, Pakistan, Thailand, Vietnam.

Observation: This is a common shrub, 2–3 m tall, in deciduous stands of Kampong Chhnang. In Kampong Thom, this species occurs rarely in evergreen stands. The *rbcl* sequences between two locations differ in 1 base and thus *O. integerrima* could include two cryptic species.

189. Phyllanthaceae

Antidesma ghaesembilla Gaertn., Fruct. Sem. Pl. 1: 189 (1788); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 505 (1926); Dy Phon, Pl. Util. Cambod.: 42 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 223, fig. 4826 (2003); Chayam. & Welzen, Fl. Thailand 8: 65 (2005); Li & Petra Hoffm., Fl. China 11: 210 (2008).

Local name (Representative specimen): Dang Keab Kdam (158, 1126).

Distribution: Australia, Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree, 4–5 m tall, rarely found in deciduous stands of Kampong Chhnang. The *matK* sequences between two specimens differ in 3 bases and thus *A. ghaesembilla* could include two cryptic species.

Antidesma japonicum Siebold & Zucc., Abh. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. 4 (3): 212 (1846); P. H. Hô, Ill. Fl. Vietnam 2: 227, fig. 4843 (2003); Chayam. & Welzen, Fl. Thailand 8: 66 (2005); Li & Petra Hoffm., Fl. China 11: 213 (2008).

Antidesma cambodianam Gagnep., Bull. Soc. Bot. France 70: 118 (1923); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 519 (1926); Dy Phon, Pl. Util. Cambod.: 42 (2000).

Local name (Representative specimens): no local name (269, 886).

Distribution: Cambodia, China, Japan, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a small shrub up to 1.2 m tall, rarely found in the understory of evergreen stands in Kampong Thom.

Antidesma montanum Blume, Bijdr. Fl. Ned. Ind. 17:

1124 (1827); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 515 (1926); P. H. Hô, Ill. Fl. Vietnam 2: 228, fig. 4846 (2003); Chayam. & Welzen, Fl. Thailand 8: 70 (2005); Li & Petra Hoffm., Fl. China 11: 213 (2008).

Local name (Representative specimens): Chung Kong Andoeuk (921, 1052, 1073 [fl]).

Distribution: Australia, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tree, 10–13 m tall, growing sporadically in evergreen stands of Kampong Thom.

Antidesma puncticulatum Miq., Fl. Ned. Ind., Eerste Bijv. 3: 468 (1861); Chayam. & Welzen, Fl. Thailand 8: 76 (2005).

Local name (Representative specimens): Chung Kong Andoeuk (356 [KT29-tree 26], 471, 904, 1080 [KT32-tree 13]).

Distribution: Cambodia, India, Indonesia, Malaysia, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a tree, 10 m tall, occasionally found in evergreen stands of Kampong Thom. This species is distinguishable from *Antidesma montanum* by coriaceous smooth leaves and branches, and swollen petiole at base and joint to the leaves.

Aporosa ficifolia Baill., Adansonia 11: 177 (1874); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 558 (1927); P. H. Hô, Ill. Fl. Vietnam 2: 219, fig. 4808 (2003); Dy Phon, Pl. Util. Cambod.: 44 (2000); Chayam. & Welzen, Fl. Thailand 8: 88 (2005).

Local name (Representative specimens): Krong (5, 84, 242, 339, 470).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tree, 10–15 m tall, found in primary evergreen and deciduous plots and regrowth plots of Kampong Thom. Saplings are rather common in the evergreen plots. This species is easily distinguished from the following species, *A. villosa*, in fine veins distinct in the upper surface of leaves.

Aporosa planchoniana Baill. ex Müll.Arg., Prodr. [A. P. de Candolle] 15 (2): 475 (1866); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 560 (1927); P. H. Hô, Ill. Fl. Vietnam 2: 211, fig. 4811 (2003); Chayam. & Welzen, Fl. Thailand 8: 98 (2005); Li & M. G. Gilbert, Fl. China 11: 216 (2008).

Local name (Representative specimens): Pich Chanva (29, 301, 315, 333 [KT22-tree 47], 344, 476, 945, 968 [KT22-tree 11], 1004 [fl], 1062 [KT31-tree 44]).

Distribution: Cambodia, China, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a small tree 7–11 m tall, common in primary evergreen and regrowth plots of Kampong Thom.

Aporosa villosa (Lindl.) Baill., Étude Euphorb.: 645 (1858); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 558 (1927); P. H. Hô, Ill. Fl. Vietnam 2: 220, fig. 4815 (2003); Chayam. & Welzen, Fl. Thailand 8: 102 (2005); Li & M. G. Gilbert, Fl. China 11: 215 (2008).

Scepa villosa Lindl., Intr. Nat. Syst. Bot. ed. 2: 441 (1836).

Aporosa sphaerosperma Gagnep., Bull. Soc. Bot. France 70: 234 (1923); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 557 (1927); P. H. Hô, Ill. Fl. Vietnam 2: 220, fig. 4813 (2003).

Local names (Representative specimens): Tar Mound Seik (127), Krong (436, 994 [fr]).

Distribution: Cambodia, China, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a shrub usually less than 3 m tall. This species is common in deciduous stands of Kampong Thom and occasionally found in regrowth plots of Kampong Thom and deciduous stands of Kampong Chhnang.

***Baccaurea* sp. 1.**

Local name (Representative specimen): Looveateuk (511).

Observation: We collected a sterile plant of this species in a swamp forest of Kampong Thom. We need to get fertile specimens to identify this plant.

Bridelia curtisii Hook.f., Fl. Brit. India [J. D. Hooker] 5: 273 (1887); Chayam. & Welzen, Fl. Thailand 8: 143 (2005).

Bridelia ovata Decne. var. *curtisii* (Hook.f.) Airy Shaw, Kew Bull. 26: 229 (1972); P. H. Hô, Ill. Fl. Vietnam 2: 236, fig. 4880 (2003).

Distribution: Andaman & Nicobar Islands, Cambodia, Indonesia (N Sumatra), Malaysia (Peninsula), Vietnam.

Local name (Representative specimen): no local name (1086).

Observation: We collected a sterile plant of this species in the vicinity of KT32.

Breynia vitis-idaea (Burm.f.) C. E. C. Fisch., Bull. Misc. Inform. Kew 1932: 65 (1932); P. H. Hô, Ill. Fl. Vietnam 2: 211, fig. 4771 (2003); Dy Phon, Pl. Util. Cambod.: 102 (2000); Chayam. & Welzen, Fl. Thailand 8: 140 (2005); Li & Esser, Fl. China 11: 208 (2008).

Rhamnus vitis-idaea Burm.f., Fl. Ind. (N. L. Burman): 61 (1768).

Breynia rhamnoides (Retz.) Müll.Arg., Prodr. [A. P. de Candolle] 15 (2): 440 (1866); Beille, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 636 (1927).

Local name (Representative specimens): Thmeinh Trey (190, 547).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small shrub up to 1.5 m tall, occasionally found in deciduous stands of Kampong Chhnang.

Cleistanthus sumatranus (Miq.) Müll.Arg., Prodr. [A. P. de Candolle] 15 (2): 504 (1866); P. H. Hô, Ill. Fl. Vietnam 2: 234, fig. 4869 (2003); Chayam. & Welzen, Fl. Thailand 8: 178 (2005); Li & S. Dressler, Fl. China 11: 173 (2008).
Leiopyxis sumatrana Miq., Fl. Ned. Ind., Eerste Bijv. 3: 446 (1861).

Local names (Representative specimens): Speu Toeuk (926 [fr], 935), 967 [KT22-tree 3], 969 [KT22-tree 16], 976 [KT22-tree 48], 'Mean Prey' (268, 275 [KT26-tree 10], 276 [KT26-tree 11]), no local name (332 [KT22-tree 45], 343, 345).

Distribution: Brunei, Cambodia, China, Indonesia, Laos, Malaysia, Philippines, Singapore, Thailand, Vietnam.

Observation: This is a tall evergreen tree and common in KT21–24 and KT25–28. This species is called 'Speu Toeuk' but often misidentified as 'Mean Prey' by local people.

Cleistanthus tomentosus Hance, J. Bot. 15: 337 (1877); Dy Phon, Pl. Util. Cambod.: 162 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 234, fig. 4870 (2003); Chayam. & Welzen, Fl. Thailand: 180 (2005); Li & S. Dressler, Fl. China 11: 173 (2008).

Cleistanthus eburneus Gagnep., Bull. Soc. Bot. France 70: 501 (1923); Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 483 (1926).

Local name (Representative specimen): Phlao Neang (443).

Distribution: Cambodia, China, Thailand, Vietnam.

Observation: This is a small tree rarely found in Kampong Thom. We collected this species in the entrance of an evergreen plot KT09.

Glochidion kerrii Craib, Misc. Inform. Kew 1911: 458 (1911); Beille, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 627 (1927); Welzen & Chayam., Fl. Thailand 8: 321 (2007).

Local name (Representative specimen): no local name (513).

Distribution: Cambodia (new record), Myanmar, Thailand.

Observation: This is a small shrub up to 1.7 m tall, rarely found in edge of swamp forest of Kampong Thom. This species is characterized by relatively smaller, oblong to ovate leaves densely hairy beneath.

***Glochidion* sp. 1.**

Local name (Representative specimen): no local name (1028).

Observation: This is a small shrub up to 1.7 m tall, rarely found in secondary deciduous stands of Kampong Thom. This species is similar to *G. rubrum* in having rel-

actively smaller elliptic leaves and patent hairs covering young shoots, but leaves are thicker, lustrous, and when young, greenish or only slightly reddish.

Hymenocardia punctata Wall. ex Lindl., Intr. Nat. Syst. Bot. ed. 2: 441 (1836); P. H. Hô, Ill. Fl. Vietnam 2: 222, fig. 4822 (2003); Welzen & Chayam., Fl. Thailand 8: 341 (2007).

Hymenocardia laotica Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 546 (1927).

Local name (Representative specimen): Phnom Phneng (1029).

Distribution: Cambodia, Indonesia (Sumatra), Laos, Malaysia (Malay Peninsula), Myanmar, Thailand, Vietnam.

Observation: We collected a young tree of this species in the transect Line 3 (regrowth plot 11–15).

Phyllanthus emblica L., Sp. Pl. 2: 982 (1753); Beille, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 580 (1927); P. H. Hô, Ill. Fl. Vietnam 2: 189, fig. 4691 (2003); Dy Phon, Pl. Util. Cambod.: 497 (2000); Welzen & Chayam., Fl. Thailand 8: 488 (2008); Li & Gilbert, Fl. China 11: 182 (2008).

Local name (Representative specimen): Korntuat Prey (139).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a scandent shrub 2–3 m tall, rarely found in the vicinity of a deciduous stand SB02 of Kampong Chhnang.

191. Malpighiaceae

Aspidopterys thorelii Dop, Bull. Soc. Bot. France 55: 428 (1908); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 602 (1911); Sirirugsa, Fl. Thailand 5: 295 (1991).

Local name (Representative specimen): no name (1078).

Distribution: Cambodia, Laos, Thailand.

Observation: This woody climber is found at plot KT32. This species is characteristic of oblong leaves cordate at the base, obtuse at the apex, glabrous above, and pubescent beneath.

196. Chrysobalanaceae

Parinari anamensis Hance, J. Bot. 15: 333 (1877); Cardot, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 615 (1920); Vidal, Fl. Thailand 2: 73 (1970); P. H. Hô, Ill. Fl. Vietnam 1: 809, fig. 3252 (1999); Dy Phon, Pl. Util. Cambod.: 490 (2000).

Local name (Representative specimens): Thlok (Thlork; 19, 70, 140, 211, 409, 532, 1091 [fl]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tall tree growing up to 20–30

m, widely found in evergreen and deciduous plots of Kampong Thom and also in deciduous plots of Kampong Chhnang.

201. Salicaceae

Flacourtia indica (Burm.f.) Merr., Interpr. Herb. Amboin.: 377 (1917); P. H. Hô, Ill. Fl. Vietnam 1: 542, fig. 2167 (1999); Dy Phon, Pl. Util. Cambod.: 301 (2000); Q. E. Yang & Zmarzty, Fl. China 13: 120 (2007).

Gmelina indica Burm.f., Fl. Ind. (N. L. Burman) 132: t. 39, fig. 5 (1768).

Flacourtia sepiaria Roxb., Pl. Coromandel 1: 48, t. 68 (1795); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 236 (1909).

Local name (Representative specimen): Kro Khob Prey (161).

Distribution: Widespread and cultivated in tropical and subtropical regions of Africa, Asia, and the Pacific islands.

Observation: This is a small tree occasionally found around a deciduous plot SB02 of Kampong Chhnang.

202. Violaceae

Rinorea anguifera (Lour.) Kuntz, Revis. Gen. Pl. 1: 42 (1891); P. H. Hô, Ill. Fl. Vietnam 1: 553, fig. 2211 (1999).

Medusa anguifera Lour., Fl. Cochinch. 2: 406 (1790).

Rinorea echinocarpa (Korth.) Burkill, Gard. Bull. Straits Settlement. 6: 172 (1930).

Alsodeia echinocarpa Korth., Ned. Kruidk. Arch. 1: 360 (1848); H. Boissieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 214 (1909).

Local name (Representative specimen): Kabbas Prey (485 [fl]).

Distribution: Cambodia, Indonesia, Laos, Thailand, Vietnam.

Observation: This is a shrub found in the understory of an evergreen plot KT05–08.

207. Irvingiaceae

Irvingia malayana Oliver ex A. Benn., Fl. Brit. India [J. D. Hooker] 1: 522 (1875); Fl. Thailand 2: 398 (1981); Phengklai, Fl. Thailand 2: 398 (1981); Dy Phon, Pl. Util. Cambod.: 372 (2000).

Irvingia harmandiana Pierre ex Laness., Pl. Util. Colon. Franc. 306 (1886), nomen; Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 701 (1911).

Irvingia oliveri Pierre, Fl. Forest. Cochinch.: 17, t. 263B (1892); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 701 (1911).

Local name (Representative specimens): Chambak (Chomback; 55, 156, 231, 366).

Distribution: Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree grown up to 30–40 m, common in primary evergreen and regrowth plots of Kampong Thom and occasionally found in deciduous plots of Kampong Chhnang.

210. *Calophyllaceae*

Calophyllum calaba L., Sp. Pl. 1: 514 (1753).

var. *bracteatum* (Wight) P. F. Stevens, J. Arnold Arbor. 61: 261 (1980); P. H. Hô, Ill. Fl. Vietnam 1: 458, fig. 1839 (1999); Dy Phon, Pl. Util. Cambod.: 122 (2000).

Calophyllum burmanni Wight var. *bracteatum* Wight, Ill. Ind. Bot. 1: 129 (1840).

Calophyllum saigonense Pierre Fl. Forest. Cochinch.: t. 105 (1885); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 318 (1910).

Local names (Representative specimens): Phaong (39, 225 [KT30-tree 02], 392, 417, 502, 913), Tor Ong (169).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tree 10–20 m tall, common in Kampong Thom and is found in primary evergreen and deciduous plots and also in regrowth plots.

Calophyllum thorelii Pierre, Fl. Forest. Cochinch.: t. 103 (1885); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 322 (1910); P. F. Stevens, J. Arn. Arb. 61: 218 (1980); P. H. Hô, Ill. Fl. Vietnam 1: 461, fig. 1850 (1999); Dy Phon, Pl. Util. Cambod.: 124 (2000).

Local name (Representative specimen): Phaong Teuk (519).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a rare species in Kampong Thom, distinguished from *C. calaba* var. *bracteatum* by its larger and longer leaves. We collected only one specimen in the vicinity of a small swamp.

211. *Clusiaceae*

Garcinia benthamii Pierre, Fl. Forest. Cochinch.: t. 55 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 305 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 451, fig. 1814 (1999).

Garcinia ferrea Pierre, Fl. Forest. Cochinch.: t. 57 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 303 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 452, fig. 1817 (1999); Dy Phon, Pl. Util. Cambod.: 309 (2000).

Local name (Representative specimens): Prus (Prous; 36, 408).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a small tree grown up to 10 m. This species is rare in primary evergreen plots, but more common in regrowth plots of Kampong Thom.

Garcinia delpyana Pierre, Fl. Forest. Cochinch.: t. 65 (1883); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 310

(1910); Dy Phon, Pl. Util. Cambod.: 308 (2000).

Local name (Representative specimens): Tro Yak (48, 253, 910, 1063 [KT31-tree 46]).

Distribution: Cambodia.

Observation: This is a tall tree occasionally found in two evergreen plots of Kampong Thom; KT21–24, and KT29–32. This species is very similar to *G. oliveri* in leaf morphology. Local people distinguish this species ('Tro Yak') from *G. oliveri* ('Tro Moug') in that leaves are less sour. While fruits of *G. oliveri* are reddish, those of *G. delpyana* are yellowish.

Garcinia hanburyi Hook.f., J. Linn. Soc., Bot. 14: 485 (1875); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 312 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 453, fig. 1820 (1999); Dy Phon, Pl. Util. Cambod.: 308 (2000).

Local name (Representative specimen): Rong (107).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a tall tree occasionally found in two evergreen forests of Kampong Thom; KT25–28 and KT29–32. This species is characteristic of thinner leaves than other species of *Garcinia*.

Garcinia harmandii Pierre, Fl. Forest. Cochinch.: t. 60 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 302 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 453, fig. 1823 (1999); Dy Phon, Pl. Util. Cambod.: 309 (2000).

Local name (Representative specimens): Dornng Chorb (Don Chab; 160, 552 [fl]).

Distribution: Cambodia, Laos, Vietnam.

Observation: This shrub is found only in secondary sands of Kampong Chhnang. This species forms dense thickets in dry dipterocarp forests.

Garcinia lanessanii Pierre, Fl. Forest. Cochinch.: t. 70 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 302 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 454, fig. 1824 (1999).

Local name (Representative specimen): Dornng Neang Kal (447 [KT09-tree 51]).

Distribution: Cambodia, Vietnam.

Observation: This tree grown up to 12 m is very rare in evergreen stands of Kampong Thom. In PSPs, only one tree (KT09-tree 51) is recorded.

Garcinia merguensis Wight, Icon. Pl. Ind. Orient. [Wight]: t. 116 (1839); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 299 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 454, fig. 1826 (1999); Dy Phon, Pl. Util. Cambod.: 310 (2000).

Garcinia merguensis var. *pyramidata* Pierre, Fl. Forest. Cochinch.: t. 69 (1883).

Garcinia merguensis var. *truncata* Pierre, Fl. Forest. Cochinch.: t. 69 (1883).

Local name (Representative specimens): Kres (8, 287 [KT27-tree 15], 907).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This tree grown up to 12 m is occasion-

ally found in evergreen plots of Kampong Thom; KT01, 07, 22, 23 and 27. This species is characteristic of relatively smaller and thinner leaves and well-branched young shoots.

Garcinia oliveri Pierre, Fl. Forest. Cochinch.: t. 64 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 309 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 455, fig. 1831 (1999); Dy Phon, Pl. Util. Cambod.: 310 (2000).

Local name (Representative specimens): Tro Moug (65, 141, 305, 993).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a small tree 5–8 m tall. This species is common in regrowth plots of Kampong Thom. In primary evergreen plots, only one tree (KT18-tree 16) is recorded.

Garcinia vilersiana Pierre, Bull. Mens. Soc. Linn. Paris 1: 348 (1882); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 297 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 456, fig. 1835 (1999); Dy Phon, Pl. Util. Cambod.: 311 (2000).

Local name (Representative specimen): Prohout (486).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a tree 10–12 m tall. In PSPs of Kampong Thom, this is recorded only in an evergreen plot KT05–08. We found only one individual in the vicinity of KT09.

212. Bonnetiaceae

Ploiarium alternifolium (Vahl) Melch., Nat. Pflanzenfam. ed. 2 [Engler & Prantl] 21: 151 (1925); H. Keng, Fl. Thailand 2: 159 (1972); Dy Phon, Pl. Util. Cambod.: 504 (2000).

Hypericum alternifolium Vahl, Symb. Bot. (Vahl) 2: 85 (1791).

Archytaea vahlii Choisy, Mém. Soc. Phys. Genève 14: 163 (1855); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 331 (1910).

Local name (Representative specimen): Sreung (497).

Distribution: Cambodia, Indonesia, Malaysia, Thailand.

Observation: This is a shrub up to 2 m tall. We collected this species in open place near a swamp of Kampong Thom where *Baeckea frutescens* L. is dominated.

214. Hypericaceae

Cratoxylum cochinchinense (Lour.) Blume, Mus. Bot. 2: 17 (1856); P. H. Hô, Ill. Fl. Vietnam 1: 465, fig. 1867 (1999); Dy Phon, Pl. Util. Cambod.: 177 (2000); Li *et al.*, Fl. China 13: 36 (2007).

Hypericum cochinchinense Lour., Fl. Cochinch. 2: 472 (1790).

Cratoxylum polyanthum Korth. Flora 31: 579 (1848);

Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 290 (1910).

Local name (Representative specimen): Le Ngieng (394).

Distribution: Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a deciduous tree similar to the following species, *C. formosum*. We collected only one specimen in a secondary stand between RG1 and RG2 where both this and the following species are found. This species is distinguished from *C. formosum* in leaves not lustrous above and shortly petiolated.

Cratoxylum formosum (Jack) Benth. & Hook.f. ex Dyer, Fl. Brit. India [J. D. Hooker] 1: 258 (1874); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 288 (1909); P. H. Hô, Ill. Fl. Vietnam 1: 464, fig. 1865 (1999); Li *et al.*, Fl. China 13: 37 (2007).

Elodes formosa Jack, J. Bot. (Hooker) 1: 374 (1834).

Cratoxylum formosum (Jack) Benth. & Hook.f. ex Dyer ssp. *pruniflorum* (Kurz) Goegelein, Blumea 15: 469 (1967); P. H. Hô, Ill. Fl. Vietnam 1: 465, fig. 1866 (1999); Dy Phon, Pl. Util. Cambod.: 177 (2000); Li *et al.*, Fl. China 13: 38 (2007).

Cratoxylum prunifolium (Kurz) Dyer, Fl. Brit. India [J. D. Hooker] 1: 258 (1874); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 289 (1910).

Local name (Representative specimens): Le Ngieng (Lo Ngieng, Lngeang; 46, 117, 395, 536, 991, 1034, 1042).

Distribution: Cambodia, China, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a deciduous tree 8–15 m tall, occasionally found in primary and regrowth plots of Kampong Thom, preferring open habitats such as thickets, secondary stands and forest margins, and also in deciduous stands of and Kampong Chhnang. This species is distinguished from *C. cochinchinense* in leaves lustrous above and longer petioles.

218. Combretaceae

Combretum latifolium Blume, Bijdr. Fl. Ned. Ind. 13: 641 (1826); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 51 (1969); Dy Phon, Pl. Util. Cambod.: 169 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 104, fig. 4353 (2003); J. Chen & Turland, Fl. China 13: 319 (2007).

Combretum extensum Roxb. ex G. Don, Trans. Linn. Soc. London 15: 414 (1827); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 737 (1920).

Local names (Representative specimens): Ksou (109), Vor Ksuos (457).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, New Guinea, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a woody vine, occasionally found in evergreen stands of Kampong Thom.

Terminalia alata Roth, Nov. Pl. Sp.: 379 (1821); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 82 (1969); Dy Phon, Pl. Util. Cambod.: 597 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 106, fig. 4362 (2003).

Terminalia tomentosa Wright & Arn., Prodr. Fl. Ind. Orient. 1: 314 (1834), nom. illeg.; Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 754 (1920).

Local name (Representative specimen): Chhlik (555).

Distribution: Cambodia, India, Laos, Myanmar, Nepal, Thailand, Vietnam.

Observation: This is a tall tree rare in deciduous stands of Kampong Chhnang.

Terminalia calamansanay Rolfe, J. Linn. Soc., Bot. 21: 310 (1884); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 75 (1969); P. H. Hô, Ill. Fl. Vietnam 2: 107, fig. 4364 (2003).

Terminalia papilio Hance, J. Bot. 15: 333 (1877); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 752 (1920).

Terminalia bialata (Roxb.) Steud., Nomencl. Bot. [Steudel] ed. 2, 2: 668 (1841); sensu Dy Phon, Pl. Util. Cambod.: 598 (2000).

Local name (Representative specimen): Popiel Khe (Popeal Khe; 188).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tall tree rare in deciduous plots of Kampong Chhnang.

Terminalia chebula Retz., Observ. Bot. (Retz.) 5: 31 (1789); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 752 (1920); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 89 (1969); Dy Phon, Pl. Util. Cambod.: 599 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 107, fig. 4366 (2003); J. Chen & Turland, Fl. China 13: 313 (2007).

Local name (Representative specimen): Sro Mor (186).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Laos, Malaysia (introduced), Myanmar, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This is a rare tree, 10–15 m tall, in Kampong Chhnang.

Terminalia darfeuillana Pierre ex Laness., Pl. Util. Col. Franc.: 314 (1886); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 96 (1969).

Terminalia perrieri Capuron, Bull. Mus. Natl. Hist. Nat., Ser. 3, Bot. 11: 135 (1973); Dy Phon, Pl. Util. Cambod.: 601 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 108, fig. 4369 (2003).

Local name (Representative specimen): Sro Mor Prey (463).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a rare tree in Kampong Thom. In PSPs, only one tree (KT07-tree 09) is recorded in an evergreen plot.

Terminalia nigrovenulosa Pierre, Pl. Util. Col. Franc.: 315 (1886); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 756 (1920); Lecomte, Fl. Cambodge, Laos & Vietnam 10: 92 (1969); J. Chen & Turland, Fl. China 13: 311 (2007).

Terminalia triptera Stapf, Bull. Misc. Inform. Kew 1895: 103 (1895); Dy Phon, Pl. Util. Cambod.: 600 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 109, fig. 4373 (2003).

Local names (Representative specimens): Phras Phnov (306), Preah Phnao (376).

Distribution: Cambodia, China, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree common in some evergreen plots (KT18–19, KT22 and KT26) of Kampong Thom.

219. Lythraceae

Lagerstroemia duperreana Pierre ex Gagnep., Notul. Syst. (Paris) 3: 358 (1918).

Lagerstroemia thorelii Gagnep., Notul. Syst. (Paris) 3: 362 (1918); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 947 (1921); Dy Phon, Pl. Util. Cambod.: 394 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 30, fig. 4055 (2003).

Local name (Representative specimens): Sro Lao (67, 364).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a tall tree commonly found in some evergreen plots (KT05–06, KT18–20 and KT21) of Kampong Thom.

Lagerstroemia floribunda Jack, Malayan Misc. 1 (5): 38 (1820); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 953 (1921); Dy Phon, Pl. Util. Cambod.: 395 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 32, fig. 4064 (2003).

Local name (Representative specimens): Tro Beik Prey (Tro Bak Prey; 191, 539).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tree occasionally found in deciduous stands of Kampong Chhnang.

222. Myrtaceae

Baeckea frutescens L., Sp. Pl. 1: 358 (1753); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 789 (1920); Dy Phon, Pl. Util. Cambod.: 84 (2000); J. Parn. & Chantar., Fl. Thailand 7: 782 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 67, fig. 4200 (2003); J. Chen & Craven, Fl. China 13: 330 (2007).

Local name (Representative specimen): Morechtun-say (496).

Distribution: Australia, Cambodia, China, India, Indonesia (Sumatra & Borneo), Malaysia, Myanmar, New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a small shrub 1–1.5 m tall. We collected this species in a heath-like vegetation developed in open place near a swamp of Kampong Thom where this

species was dominant.

Melaleuca cajuputi Powell, Pharm. Lond. Trans.: 22 (1809); J. Parn. & Chantar., Fl. Thailand 7: 801 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 67, fig. 4199 (2003).

Melaleuca leucadendra auct. non (L.) L.; Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 790 (1920); Dy Phon, Pl. Util. Cambod.: 431 (2000).

Myrtus leucadendra L., Herb. Amboin. (Linn.): 9 (1754).

Local name (Representative specimens): Smach (435, 498).

Distribution: Australia, Cambodia, China, India, Indonesia, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree occasionally found in evergreen plots of Kampong Thom (KT23, KT29), and common in a regrowth plot (RG08). This species is typically found in swamp forests.

Rhodamnia dumetorum (DC.) Merr. & L. M. Perry, J. Arnold Arbor. 19: 195 (1938); I. M. Turner, Gard. Bull. Singapore 47: 371 (1995); J. Parn. & Chantar., Fl. Thailand 7: 806 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 42, fig. 4101 (2003); J. Chen & Craven, Fl. China 13: 330 (2007). *Rhodamnia trinervia* Lour., Fl. Cochinch. 1: 312 (1790) (non *Rhodamnia trinervia* Blume, 1850); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 844 (1920).

Nelitris trinervia (Lour.) Spreng., Syst. Veg. (ed. 16) [Sprengel] 2: 488 (1825).

R. dumetorum (Poir.) Merr. & L. M. Perry, J. Arnold Arbor. 19: 195 (1938).

R. siamensis Craib, Bull. Misc. Inform. Kew 1926: 167 (1926); Fl. Siam. 1: 629 (1931).

Local name (Representative specimen): Pouch (113).

Distribution: Cambodia, China, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a small tree. We collected only one specimen in a deciduous plot of Kampong Chhnang (SB02).

Rhodomyrtus tomentosa (Aiton) Hassk., Flora 25 (2, Beibl.): 35 (1842); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 794 (1920); Dy Phon, Pl. Util. Cambod.: 537 (2000); J. Parn. & Chantar., Fl. Thailand 7: 809 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 43, fig. 4105 (2003); J. Chen & Craven, Fl. China 13: 331 (2007).

Myrtus tomentosa Aiton, Hortus Kew. (W. Aiton) 2: 159 (1789).

Local name (Representative specimens): Pouch (93, 440).

Distribution: Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a shrub 2–3 m tall, occasionally found in swamp forest of Kampong Thom.

Syzygium chanlos (Gagnep.) Merr. & L. M. Perry, J. Ar-

nold Arbor. 19: 109 (1938); P. H. Hô, Ill. Fl. Vietnam 2: 48, fig. 4123 (2003). —**Fig. 6a, b.**

Eugenia chanlos Gagnep., Notul. Syst. (Paris) 3: 320 (1917); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 821 (1920).

Local names (Representative specimens): Pring (961 [KT21-tree 32], 974 [KT22-tree 42]), Pring So (1000 [fl]), Pring Muoyroy Strotob (1065 [fl], 1076 [fl, KT31-tree 32]).

Distribution: Cambodia, Vietnam.

Observation: This is a tall tree common in evergreen plots of Kampong Thom. This species is characterized by scaly, flaking bark on the inflorescence branches and leaves lacking intramarginal veins. This species is similar to *S. hemisphericum* (Wight) Alston reported from Thailand and further studies are needed to clarify the relationship of these two species.

Syzygium cumini (L.) Skeels, Bull. Bur. Pl. Industr. U. S. D. A. 248: 25 (1912); Dy Phon, Pl. Util. Cambod.: 578 (2000); J. Parn. & Chantar., Fl. Thailand 7: 847 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 45, fig. 4112 (2003); J. Chen & Craven, Fl. China 13: 355 (2007). —**Fig. 6c, d.**

Myrtus cumini L., Sp. Pl. 1: 471 (1753).

Eugenia cumini (L.) Druce, Rep. Bot. Exch. Club Soc. Brit. Isles 3: 418 (1913).

Eugenia jambolana Lam., Encycl. [J. Lamarck & al.] 3: 198 (1789); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 818 (1920).

Local names (Representative specimens): Pring (202, 377), Pring Bay (501), Pring Krohom (460, 475), Pring Ual (1021 [fl]), Pring Chu (1090 [fl], 1108 [fl]).

Distribution: Australia, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree common in primary evergreen and deciduous plots and regrowth plots of Kampong Thom and also in deciduous plots of Kampong Chhnang. This species is characteristic of rounded or oblong leaves.

Syzygium grande (Wight) Walp., Repert. Bot. Syst. (Walpers) 2: 180 (1843); J. Parn. & Chantar., Fl. Thailand 7: 858, fig. 17 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 50, fig. 4132 (2003). —**Fig. 6e, f.**

Eugenia laosensis Gagnep., Notul. Syst. (Paris) 3: 326 (1918); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 831, fig. 90 (1920).

Syzygium laosense (Gagnep.) Merr. & L. M. Perry, J. Arnold Arbor. 19: 113 (1938); Dy Phon, Pl. Util. Cambod.: 579 (2000).

Local names (Representative specimens): Pring (233), Pring So (1072 [KT31-tree 25]).

Distribution: Cambodia, India, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree occasionally found in evergreen plots of Kampong Thom. This species is similar to *S. oblatum* in having thicker and larger leaves than

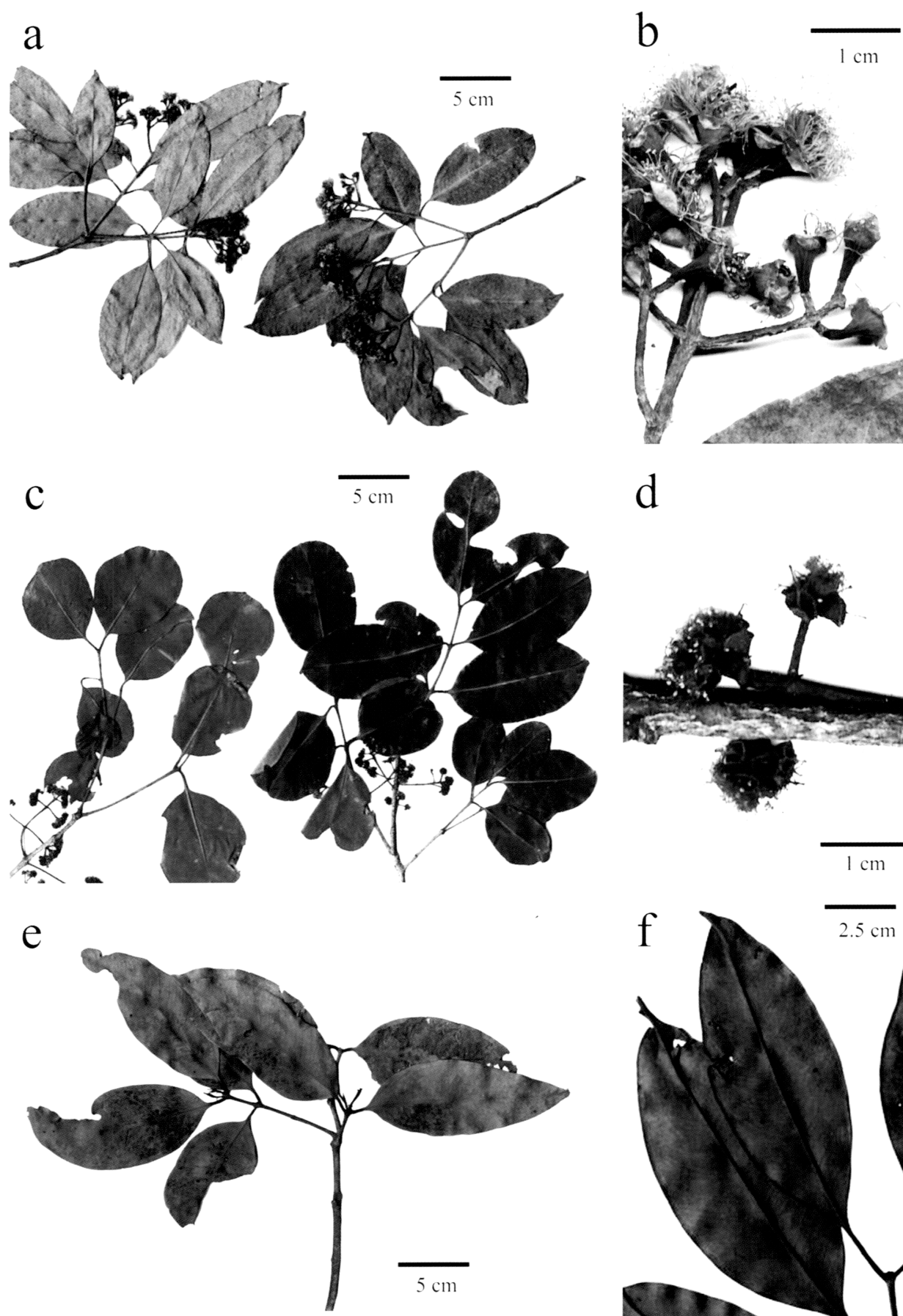


Fig. 6. *Syzygium*, Myrtaceae. a & b: *S. chanlos* (1076). c & d: *S. cuminii* (1021). e: *S. grande* (233). f: *S. grande* (1072).

other *Syzygium* species of Kampong Thom, but differs in more lustrous leaf surface, more prominent nerves associated with two intermarginal vein (*S. oblatum* usually has only one intermarginal vein), and leaf apex sharply deflexed.

Syzygium oblatum (Roxb.) Wall. ex Steud., Nomencl. Bot. [Steudel], ed. 2: 657 (1841); J. Parn. & Chantar., Fl. Thailand 7: 879 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 52, fig. 4140 (2003); J. Chen & Craven, Fl. China 13: 359 (2007). —**Fig. 7a, b.**

Eugenia oblata Roxb., Fl. Ind. 2: 493 (1832).

Local names (Representative specimens): Pring (91 [fl]), Pring Krahom (928 [fl], 996), 1084 [KT32-tree 58]).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree common in evergreen plots of Kampong Thom. This species is distinguishable from other *Syzygium* species (except *S. grande*) by slightly thicker and larger leaves.

Syzygium syzygioides (Miq.) Merr. & L. M. Perry, J. Arnold Arbor. 19: 109 (1938); J. Parn. & Chantar., Fl. Thailand 7: 901, fig. 27 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 55, fig. 4152 (2003). —**Fig. 7c, d.**

Jambosa syzygioides Miq., Fl. Ned. Ind. 1: 431 (1855).

Syzygium cymosum auct. non (Lam.) DC.; Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 823 (1920).

Local names (Representative specimens): Pring (38, 64, 103, 348, 951 [KT27-tree 11]), Pring Sloek Loet (1075 [KT31-tree 28], 1079 [KT32-tree 08]).

Distribution: Cambodia, India (Assam), Malaysia, Myanmar, Thailand.

Observation: This is a tall tree common in evergreen plots of Kampong Thom. This species is distinct in smaller leaves caudate at the apex with denser lateral veins.

Syzygium zeylanicum (L.) DC., Prodr. [A. P. de Candolle] 3: 260 (1828); Dy Phon, Pl. Util. Cambod.: 581 (2000); J. Parn. & Chantar., Fl. Thailand 7: 908 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 57, fig. 4162 (2003); J. Chen & Craven, Fl. China 13: 357 (2007). —**Fig. 7e, f.**

Myrtus zeylanica L., Sp. Pl. 1: 472 (1753).

Eugenia zeylanica (L.) Wight, Ill. Ind. Bot. 2: 15 (1850), nom. illeg.; Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 804 (1920).

Local name (Representative specimens): Smach Krahom (Smach Krohom, Smach Kraham; 78 [fl], 313, 503, 1027 [fr]).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a small or tall tree common in evergreen or deciduous stands near swamps of Kampong Thom. This species is similar to *S. syzygioides* in having smaller leaves than *S. cumini*, *S. oblatum*, and *S. sp. 1*, but

leaves are thicker, acute at the apex, whitish beneath and very shortly petiolated. This species is characteristic of reddish balk.

***Syzygium* sp. 1.**

Local name (Representative specimen): Pring So (888).

Observation: We collected a sterile plant of this species in the evergreen plot KT21. This species is similar to *S. megacarpum* (Craib) Rathakr. & N. C. Nair in large oblong-elliptic leaves with an intramarginal vein. However, this species is different from *S. megacarpum* in that leaves are not leathery and not rounded (nor cordate) at base, secondary veins are less than 15 on each side of midvein, and an intramarginal vein is 5–8 mm apart from leaf margin, compared with 4–5 mm in *S. megacarpum*.

***Syzygium* sp. 2.**

Local name (Representative specimen): Pring (922).

Observation: We collected a sterile plant of this species in the evergreen plot KT22. This species is similar to *S. oblatum* in having oblong-lanceolate leaves, but leaves are thinner and leaf margin is slightly undulate. We need to get fertile specimens to elucidate the identity of this species.

Tristaniopsis burmanica (Griff.) Peter G. Wilson & J. T. Waterh., Austral. J. Bot. 30: 439 (1982); Dy Phon, Pl. Util. Cambod.: 609 (2000); J. Parn. & Chantar., Fl. Thailand 7: 912 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 60, fig. 4172 (2003).

Tristania burmannica Griff., Account Bot. Coll. Cantor: 17 (1845); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 793 (1920).

Local name (Representative specimens): Sro Ngam (414, 434).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a small tree occasionally found in dry evergreen stands of Kampong Thom.

223. Melastomataceae

Melastoma saigonense (Kuntze) Merr., J. Arnold Arbor. 29 (2): 212 (1948); Dy Phon, Pl. Util. Cambod.: 432 (2000); S. S. Renner *et al.*, Fl. Thailand 7: 445 (2001); P. H. Hô, Ill. Fl. Vietnam 2: 72, fig. 4216 (2003).

Local name (Representative specimen): Bye Nheinh (150).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a shrub 1–1.5 m tall common in deciduous stands of Kampong Chhnang.

Memecylon caeruleum Jack, Malayan Misc. 1 (5): 26 (1820); Dy Phon, Pl. Util. Cambod.: 434 (2000); P. H. Hô,

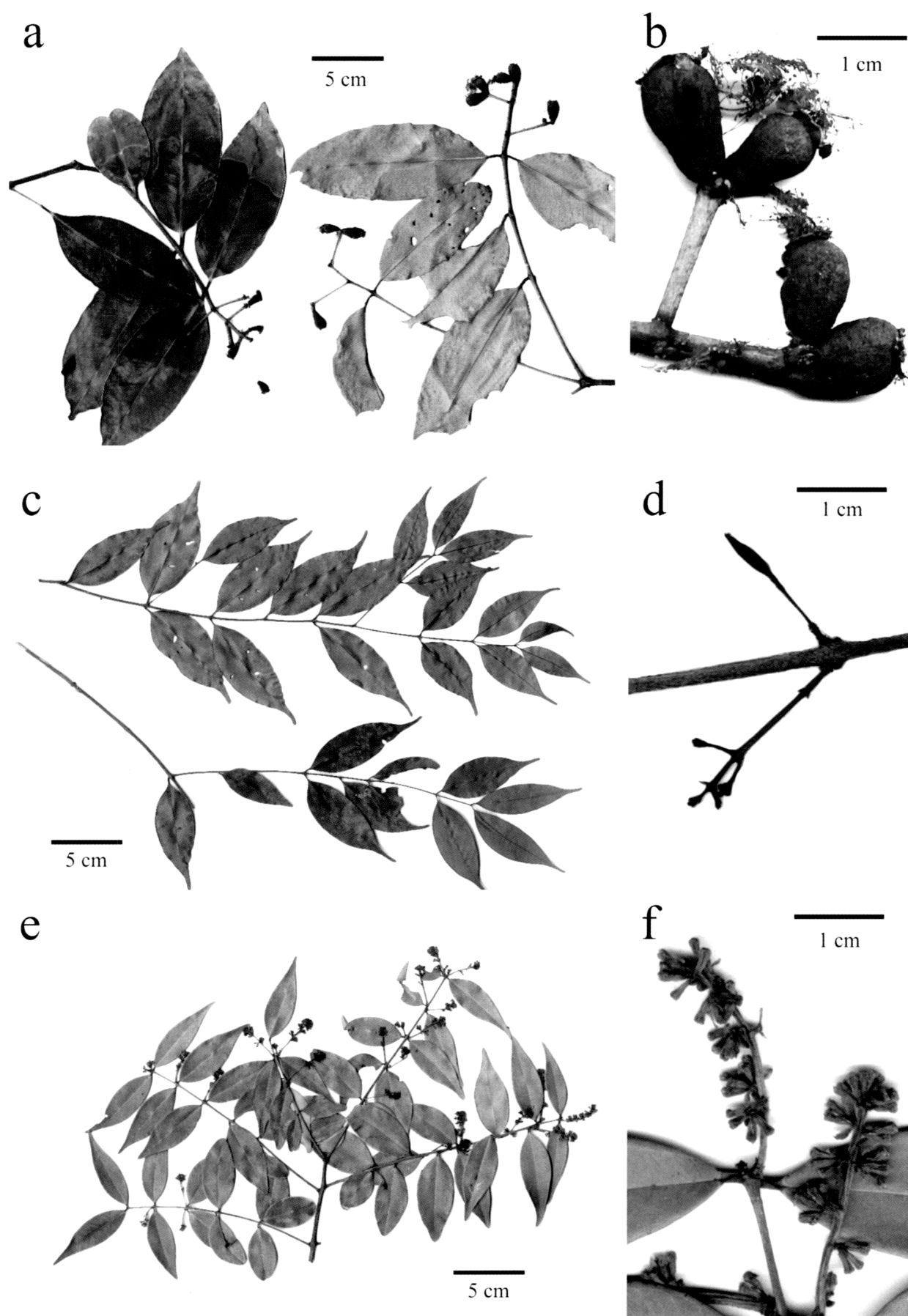


Fig. 7. *Syzygium*, Myrtaceae (continued). a & b: *S. oblatum* (928). c & d: *S. syzygioides* (38 & 348). e & f: *S. zeylanicum* (78).

Ill. Fl. Vietnam 2: 100, fig. 4336 (2003); J. Chen & S. S. Renner, Fl. China 13: 397 (2007).

Memecylon floribundum Blume, Mus. Bot. 1: 361 (1851); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 927 (1921).

Local name (Representative specimen): Phlorng Keo (260).

Distribution: Cambodia, China, Indonesia, Vietnam.

Observation: This is a shrub or a small tree rarely found in evergreen plots in Kampong Thom. One each tree was recorded in the plot KT22 and KT24.

Memecylon chevalieri Guillaumin, Bull. Soc. Bot. France 68: 7 (1921) & Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 936 (1921); P. H. Hô, Ill. Fl. Vietnam 2: 99, fig. 4335 (2003).

Local names (Representative specimens): Phlong Ang (12 [fl], 90 [fl]), Phlong (1019 [fl]).

Distribution: Cambodia, Vietnam.

Observation: This is a shrub widely found in secondary evergreen stands of Kampong Thom. In leaf morphology, this species is very similar to *M. edule*. However, specimen 89 (*M. edule*) and 90 (*M. chevalieri*) are collected in the same regrowth plot in January 2010, when *M. chevalieri* was flowering and *M. edule* was fruiting. Thus, we consider that *M. chevalieri* and *M. edule* are two different species reproductively isolated. According to the type specimen (Kampot, Chevalier, P), *M. chevalieri* has ovoid-globular fruits while *M. edule* has globular fruits.

Memecylon edule Roxb., Pl. Coromandel 1: 59, t. 82 (1798); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 934 (1921); Dy Phon, Pl. Util. Cambod.: 435 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 100, fig. 4338 (2003); K. M. Matthew, Blumea 49: 391 (2004).

Local name (Representative specimens): Phlorng Ang (89 [fr], 248 [fr], 430 [fr]).

Distribution: Cambodia, India, Laos, Malaysia, Vietnam.

Observation: This is a shrub widely found in evergreen stands of Kampong Thom.

Memecylon ovatum Sm., Cycl. [A. Rees], (London ed.) 23: 236, no. 3 (1819).

Memecylon edule var. *ovatum* (Sm.) C. B. Clarke, Fl. Brit. India [J. D. Hooker] 2: 563 (1879); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 935 (1921); P. H. Hô, Ill. Fl. Vietnam 2: 100, fig. 4339 (2003).

Local name (Representative specimens): Phlong (23, 942 [fr]).

Distribution: Cambodia, India, Laos, Malaysia (Malay Peninsula), Philippines, Thailand, Vietnam.

Observation: This is similar to *M. edule*, but leaves are thinner and lateral veins are more distinct on the lower surface of leaves. Two taxa are often treated as two varieties

of *M. edule* s. lat., but both *M. edule* and *M. ovatum* occur in the evergreen stands of Kampong Thom and can be distinguished from each other. Further, we found 3–4 bases differences in *matK* sequence between these two, and thus we treat them as two distinct species.

Memecylon scutellatum (Lour.) Hook. & Arn., Bot. Beechey Voy.: 186 (1833); P. H. Hô, Ill. Fl. Vietnam 2: 102, fig. 4346 (2003); J. Chen & S. S. Renner, Fl. China 13: 398 (2007).

Scutula scutellata Lour., Fl. Cochinch. 1: 235 (1790).

Memecylon edule var. *scutellata* (Lour.) C. B. Clarke, Fl. Brit. India [J. D. Hooker] 2 (6): 564 (1879); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 935 (1921).

Local names (Representative specimens): Kmeas (120 [fr]), Phlorng Kaek (431 [fr]), Khmeas (523 [fr], 980 [fl], 1088 [fr]), no local name (1006 [fr]).

Distribution: Cambodia, China, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a shrub common in deciduous (dry dipterocarp) plots of Kampong Thom; KT13–16. This species is similar to *M. edule*, but leaves are thicker, attenuated to both ends, very shortly petiolated, and cymes have fewer (3–6) flowers.

224. Crypteroniaceae

Crypteronia paniculata Blume, Bijdr. Fl. Ned. Ind. 17: 1151 (1827); Gagnep. & Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 697 (1920); Santisuk, Fl. Thailand 5: 431 (1992); Dy Phon, Pl. Util. Cambod.: 182 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 36, fig. 4079 (2003); H. N. Qin & Brach, Fl. China 13: 292 (2007).

Local name (Representative specimens): Klung (Khlung; 35, 63, 337 [KT24-tree 12], 369).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is a tall tree rarely found in evergreen stands of Kampong Thom. In PSPs, this species is found only in KT18–19.

238. Burseraceae

Canarium subulatum Guillaumin, Bull. Soc. Bot. France 55: 613 (1909); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 715 (1911); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 680 (1946); P. H. Hô, Ill. Fl. Vietnam 2: 362, fig. 5406 (2003); H. Peng & Thulin, Fl. China 11: 109 (2008).

Local name (Representative specimens): Ta Latt (Tra Latt; 185, 367).

Distribution: Cambodia, China, Laos, Thailand, Vietnam.

Observation: This is a small tree. We collected this species in a deciduous plot of Kampong Chhnang (SB02)

and also in a secondary stand of Kampong Thom.

239. *Anacardiaceae*

Buchanania reticulata Hance, J. Bot. 15: 332 (1877); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 11 (1908); Tardieu, Fl. Cambodge, Laos & Vietnam 2: 78 (1962); Dy Phon, Pl. Util. Cambod.: 106 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 365, fig. 5416 (2003); Chayam., Fl. Thailand 10: 274 (2010).

Local names (Representative specimens): Chey (144), Mrak Boraing (167), Rom Chhey (189).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a tree grown up to 10 m tall; occasionally found in deciduous plots of Kampong Chhnang.

Buchanania siamensis Miq., Ann. Mus. Bot. Lugduno-Batavi 4: 118 (1869); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 11 (1908); Tardieu, Fl. Cambodge, Laos & Vietnam 2: 80 (1962); Dy Phon, Pl. Util. Cambod.: 107 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 365, fig. 5417 (2003); Chayam., Fl. Thailand 10: 274 (2010).

Buchanania pallida Pierre., Fl. Forest. Cochinch.: t. 370A (1898); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 10 (1908).

Local name (Representative specimen): Laing Chey (554).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small tree rare in deciduous stands of Kampong Chhnang. This species is distinguished from *B. reticulata* in smaller leaves with very short petioles, not gathered in terminal nodes.

Gluta laccifera (Pierre) Ding Hou, Blumea 24 (1): 14 (1978); Chayam., Fl. Thailand 10: 286 (2010).

Melanorrhoea laccifera Pierre, Bull. Mens. Soc. Linn. Paris 1: 538 (1885); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 25 (1908); Tardieu, Fl. Cambodge, Laos & Vietnam 2: 104 (1962); Dy Phon, Pl. Util. Cambod.: 317 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 372, fig. 5456 (2003).

Local name (Representative specimens): Krouel (Kreul, Krul; 146, 193, 201, 499, 981, 986, 1009, 1010).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a common tree in deciduous (dry dipterocarp) plots in Kampong Thom, KT13–16, and also in community forest plots of Kampong Chhnang. The *matK* sequences between two locations differ in 3 bases and thus *G. laccifera* could include two cryptic species.

Lannea coromandelica (Houtt.) Merr., J. Arnold Arbor. 19: 353 (1938); Dy Phon, Pl. Util. Cambod.: 396 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 373, fig. 5463 (2003); Tianlu & Barfod, Fl. China 11: 342 (2008); Chayam., Fl. Thailand 10: 293 (2010).

Lannea wodier (Roxb.) Adelb., Blumea 6: 326 (1948);

Tardieu, Fl. Cambodge, Laos & Vietnam 2: 141 (1962). *Odina wodier* Roxb., Hort. Bengal.: 29 (1814); Fl. Ind. (Roxburgh) 2: 293 (1832).

Local name (Representative specimens): Ta Latt (221 [SB07-tree 02]).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree. We collected this species in a deciduous plot of Kampong Chhnang (SB02). This species is confused with *Canarium subulatum* Guill. of Burseraceae by local people.

Mangifera cochinchinensis Engl., Monogr. Phan. [A. DC. & C. DC.] 4: 205 (1883); Dy Phon, Pl. Util. Cambod.: 426 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 366, fig. 5420 (2003); Chayam., Fl. Thailand 10: 299 (2010).

Local name (Representative specimens): Svay Pong Trong (42, 335 [KT24-tree 32], 966 [KT22-tree 01]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This tree was collected only in an evergreen plot of Kampong Thom; KT24. This species is characteristic of rounded leaf apex.

Mangifera duperreana Pierre, Fl. Forest. Cochinch.: t. 362 A (1897); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 14 (1908); Tardieu, Fl. Cambodge, Laos & Vietnam 2: 86 (1962); P. H. Hô, Ill. Fl. Vietnam 2: 367, fig. 5423 (2003); Chayam., Fl. Thailand 10: 299 (2010).

Local name (Representative specimen): Svay Prey (209).

Distribution: Cambodia, Thailand, Vietnam.

Observation: This is tall tree up to 25 m and occasionally found in deciduous plots of Kampong Chhnang.

Semecarpus cochinchinensis Engl., Monogr. Phan. [A. DC. & C. DC.] 4: 489 (1883); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 37 (1908); Tardieu, Fl. Cambodge, Laos & Vietnam 2: 160 (1962); Dy Phon, Pl. Util. Cambod.: 554 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 376, fig. 5473 (2003); Chayam., Fl. Thailand 10: 319 (2010).

Semecarpus thorelii Pierre, Fl. Forest. Cochinch.: t. 369 A (1898); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 39 (1908).

Local name (Representative specimens): Kropul Bay (551, 1118).

Distribution: Cambodia, Laos, Malaysia, Thailand, Vietnam.

Observation: This tree was collected only in a deciduous stand near SB01 of Kampong Chhnang.

240. *Sapindaceae*

Allophylus serratus (Hiern) Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 44 (3): 185 (1876); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 923 (1950).

Allophylus cobbe (L.) Raeusch. f. *serratus* Hiern, Fl. Brit. India [J. D. Hooker] 1: 675 (1875).

Local name (Representative specimen): Krobas Prey (550).

Distribution: Cambodia, India, Philippines, Vietnam.

Observation: This is a weedy vine, collected only once under a fig tree in a deciduous stand near SB01 of Kampong Chhnang. This species is characteristic of leaves acutely serrate.

Dimocarpus longan Lour., Fl. Cochinch. 1: 233 (1790). subsp. *malesianus* Leenh., Blumea 19: 126 (1971); Welzen, Fl. Thailand 7: 195 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 321, fig. 5236 (2003).

Dimocarpus informis Lour., Fl. Cochinch. 1: 234 (1790).

Dimocarpus litchi Lour., Fl. Cochinch. 1: 233 (1790).

Euphoria cambodiana Lecomte, Notul. Syst. (Paris) 2: 55 (1911); Fl. Indo-Chine [P. H. Lecomte et al.] 1: 1046 (1912).

Local name (Representative specimen): Mean Prey (298).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Papua New Guinea, Philippines, Thailand, Vietnam.

Observation: We found only one tree in a secondary stand outside of PSPs. This species is similar to *longan* (*Dimocarpus longan* Lour.), a widely cultivated tree, and often treated as its synonym. However, DNA (*matK*) sequence of our collection showed differences of 4 nucleotides from the sequence of *D. longan* available in DNA database (AY724286); the latter was more similar to the sequence of *D. australianus* of Australia.

Lepisanthes rubiginosa (Roxb.) Leenh., Blumea 17 (1): 82 (1969); Welzen, Fl. Thailand 7: 214 (1999); Dy Phon, Pl. Util. Cambod.: 399 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 318, fig. 5225 (2003); Nianhe & Gadek, Fl. China 12: 13 (2007).

Sapindus rubiginosus Roxb., Pl. Coromandel 1: 44, t. 62 (1796).

Local name (Representative specimen): Chunluos (535).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a small tree occasionally found in deciduous plots of Kampong Chhnang.

Lepisanthes tetraphylla Radlk., Sitzungsber. Math.-Phys. Cl. Königl. Bayer. Akad. Wiss. München 8: 276 (1878); Welzen, Fl. Thailand 7: 218 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 319, fig. 5227 (2003).

Lepisanthes mekongensis Pierre, Fl. Forest. Cochinch. Fasc. 21: t. 326 (1897).

Local name (Representative specimen): Chor Lush (121).

Distribution: Cambodia, Indonesia, Malaysia, Myan-

mar, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree occasionally found in deciduous plots of Kampong Chhnang. This species has glabrous lanceolate leaflets acute at apex and at base, slightly pubescent rachis pulvinate, compared with *L. rubiginosa* having yellowish pubescent, oblong leaflets rounded at apex and at base.

Nephelium hypoleucum Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 40: 50 (1871); Gagnep., Fl. Indo-Chine [P. H. Lecomte et al.] suppl.: 968 (1950); Lecomte, Fl. Indo-Chine [P. H. Lecomte et al.] 1: 1051 (1912); Welzen, Fl. Thailand 7: 227 (1999); Dy Phon, Pl. Util. Cambod.: 467 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 322, fig. 5240 (2003). *Nephelium cochinchinense* Pierre, Fl. Forest. Cochinch. Fasc. 21: t. 321a (1897); Lecomte, Fl. Indo-Chine [P. H. Lecomte et al.] 1: 1050 (1912).

Local name (Representative specimens): Roul (Raul, Rol; 2, 62, 237, 317, 322, 473, 947 [KT25-tree 30], 970 [KT22-tree 16], 1074, 1081 [KT32-tree 23], 1082 [KT32-tree 16]).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a tall tree widely found in evergreen plots of Kampong Thom.

Xerospermum noronhianum (Blume) Blume, Rumphia 3: 100 (1849); Welzen, Fl. Thailand 7: 246 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 323, fig. 5243 (2003).

Euphoria noronhiana Blume, Bijdr. Fl. Ned. Ind. 5: 234 (1825).

Xerospermum macrophyllum Pierre, Fl. Forest. Cochinch. Fasc. 21: t. 321b (1895); Lecomte, Fl. Indo-Chine [P. H. Lecomte et al.] 1: 1043 (1912).

Local name (Representative specimens): Mean Prey (14, 336, 341, 456, 944, 946 [KT25-tree 04], 953 [KT27-tree 20], 960 [KT21-tree 19], 964 [KT21-tree 39], 965 [KT21-tree 10], 975 [KT22-tree 34], 977 [KT22-tree 51], 1070 [KT31-tree 26], 1077), Klatas (57, 272 [KT25-tree 10]).

Distribution: Bangladesh, Cambodia, India (Assam), Indonesia, Myanmar, Malaysia (Peninsula), Thailand, Vietnam.

Observation: This is a common tree in evergreen forests of Kampong Thom. This species and *D. longan* subsp. *malesianus* are called 'Mean prey' (wild longan) by local people, but this species has 3–4 leaflets while *D. longan* has 6–16 leaflets. Some local people distinguish this species as 'Klatas' from *D. longan* subsp. *malesianus*.

241. Rutaceae

Acronychia pedunculata (L.) Miq., Fl. Ned. Ind., Eerste Bijv. 3: 532 (1861); Dy Phon, Pl. Util. Cambod.: 7 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 415, fig. 5522 (2003); D. Z. Zhang & T. G. Hartley, Fl. China 11: 77 (2008).

Jambolifera pedunculata L., Sp. Pl. 1: 349 (1753).

Acronychia laurifolia Blume, Cat. Gew. Buitenzorg (Blume) 27: 63 (1823); Bijdr. Fl. Ned. Ind. 5: 245 (1825); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 646 (1911).

Local name (Representative specimens): Kro Moul (263, 311).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, New Guinea, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree widely found in evergreen plots of Kampong Thom.

Atalantia monophylla (L.) DC., Prodr. [A. P. de Candolle] 1: 535 (1824); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 669 (1911); P. H. Hô, Ill. Fl. Vietnam 2: 428, fig. 5675 (2003).

Local name (Representative specimen): Krouch Prey (129).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small spiny shrub rarely found in a deciduous plot SB02 of Kampong Chhnang.

Clausena excavata Burm.f., Fl. Ind. (N. L. Burman): 89, t. 29 (1768); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 661 (1911); Molino, Bull. Mus. Natl. Hist. Nat., B, Adansonia 16: 115 (1994); Dy Phon, Pl. Util. Cambod.: 161 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 424, fig. 5658 (2003); D. Z. Zhang & T. G. Hartley, Fl. China 11: 83 (2008).

Local name (Representative specimen): Kantrob Prey (50).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Thailand, Vietnam.

Observation: This is a tree grown up to 10 m tall. We collected this species in a gap within plot KT21–24 of Kampong Thom.

Clausena sp. 1.

Local name (Representative specimen): Not recorded (1094 [fl]).

Observation: Compared with *C. excavata*, this is a small shrub up to 1 m tall, having smaller leaflets less than seven on each side and a short, simple spike on the top of shoot. We collected this taxon in an open deciduous stand of Kampong Chhnang. This species is similar to the type specimen of *C. excavata* var. *tomentosa* Kuntze (Cochinchina, Kuntze *s.n.*, Mar 1875, NY), but the latter has a longer, branched inflorescence. Further studies are needed to elucidate the identity of this plant.

Feroniella lucida (Scheff.) Swingle, Bull. Soc. Bot. France 59: 781 (1913); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 685 (1911); Dy Phon, Pl. Util. Cambod.: 297 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 437, fig. 5709

(2003).

Feronia lucida Scheff., Natuurk. Tijdschr. Ned.-Indië 31: 19 (1870).

Local name (Representative specimen): Krosang (553).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small creeping shrub. We collected this species along a path near deciduous plot SB01 of Kampong Chhnang.

Glycosmis macrophylla (Blume) Miq., Fl. Ned. Ind. 1: 522 (1859).

Sclerostylis macrophylla Blume, Bijdr. Fl. Ned. Ind. 3: 135 (1825).

Glycosmis sapindoides Lindl. ex Oliv., J. Proc. Linn. Soc., Bot. 5 (Suppl. 2): 38 (1861); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 656 (1911); P. H. Hô, Ill. Fl. Vietnam 2: 420, fig. 5642 (2003).

Local name (Representative specimens): Chhon Lous (45, 939, 1059 [fr]).

Distribution: Australia, Cambodia, Indonesia, Laos, Malaysia, Vietnam.

Observation: This is a small shrub 1.5–2 m tall. We collected this species in the understory of evergreen stands near KT21 and KT31.

Micromelum minutum (G.Forst.) Wight & Arn., Prodr. Fl. Ind. Orient. 1: 468 (1834); P. H. Hô, Ill. Fl. Vietnam 2: 422, fig. 5649 (2003).

Limonia minuta G.Forst., Fl. Ins. Austr.: 33 (1786).

Micromelum pubescens Blume, Bijdr. Fl. Ned. Ind. 3: 138 (1825); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 648 (1911).

Local name (Representative specimen): Not recorded (1112).

Distribution: Australia, Cambodia, Malaysia, Melanesia, Philippines, Tonga, Vietnam.

Observation: This is a small shrub 1.5–2 m tall. We collected this species in the understory of open deciduous forest in Kampong Chhnang.

Murraya koenigii (L.) Spreng., Syst. Veg. (ed. 16) [Sprengel] 2: 315 (1817); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 658 (1911); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 632 (1946); Dy Phon, Pl. Util. Cambod.: 297 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 423, fig. 5654 (2003); D. Z. Zhang & T. G. Hartley, Fl. China 11: 87 (2008).

Bergera koenigii L., Mant. Pl. Altera: 565 (1767).

Local name (Representative specimen): no local name (346).

Distribution: Bhutan, Cambodia, China, India, Laos, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam.

Observation: This is a small shrub 1.5–2 m tall. We collected this species in the understory of an evergreen stand near KT21–24.

***Murraya* sp. 1.**

Local name (Representative specimen): Pongrou Akas (1030 [fl]).

Observation: This is a small shrub. We collected specimens of this species, with a young inflorescence, in Regrowth Plot 13. This species is similar to *M. exotica* L. and *M. paniculata* (L.) Jack., but the *rbcL* sequence of this species differ from available sequences of these two species (529/534 in both cases).

Tetradium glabrifolium (Champ. ex Benth.) T. G. Hartley, Gard. Bull. Singapore 34 (1): 109 (1981); P. H. Hô, Ill. Fl. Vietnam 2: 413, fig. 5615 (2003); D. Z. Zhang & T. G. Hartley, Fl. China 11: 68 (2008).

Boymia glabrifolia Champ. ex Benth., Hooker's J. Bot. Kew Gard. Misc. 3: 330 (1851).

Euodia glabrifolia (Champ. ex Benth.) C. C. Huang, Guihaia 11 (1): 9 (1991).

Megabotrya meliifolia Hance ex Walp., Ann. Bot. Syst. (Walpers) 2: 259 (1852).

Euodia meliifolia (Hance ex Walp.) Benth., Fl. Hongk.: 58 (1861); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 636 (1911).

Local name (Representative specimens): no local name (302 [fr], 355).

Distribution: Bhutan, Cambodia, China, India, Japan, Malaysia, Myanmar, Laos, Philippines, Thailand, Vietnam.

Observation: This is a small tree 5–8 m tall. We collected this specie in secondary evergreen stands of Kampong Thom.

Zanthoxylum nitidum (Roxb.) DC., Prodr. [A. P. de Candolle] 1: 727 (1824); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 641 (1911); P. H. Hô, Ill. Fl. Vietnam 2: 410, fig. 5601 (2003); D. Z. Zhang & T. G. Hartley, Fl. China 11: 55 (2008).

Fagara nitida Roxb., Fl. Ind. (Carey & Wallich ed.) 1: 439 (1820).

Local name (Representative specimen): Preah Kamchat (487).

Distribution: Australia, Cambodia, China, India, Indonesia, Japan, Laos, Malaysia, Myanmar, Nepal, New Guinea, Philippines, Thailand, Vietnam.

Observation: We collected a sapling of this species in the understory of an evergreen plot KT05–08 of Kampong Thom.

242. Simaroubaceae

Brucea javanica (L.) Merr., J. Arnold Arbor. 9: 3 (1928); Noot., Fl. Thailand 2: 442 (1981); Dy Phon, Pl. Util. Cambod.: 154 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 382, fig. 5498 (2003); H. Peng & W. W. Thomas, Fl. China 11: 100 (2008).

Rhus javanica L., Sp. Pl. 1: 265 (1753).

Brucea sumatrana Roxb., Fl. Ind. (Carey & Wallich ed.) 1: 449 (1820); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 698 (1911).

Local name (Representative specimens): Thmor (177 [fl], 1110 [fl]).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Sri Lanka, Vietnam.

Observation: This is a small shrub 0.5–1 m tall. We collected this species in deciduous stands near a community forest plot SB02 of Kampong Chhnang.

Eurycoma longifolia Jack, Malayan Misc. 2 (7): 45 (1822); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 695 (1911); Noot., Fl. Thailand 2: 444 (1981); Dy Phon, Pl. Util. Cambod.: 285 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 383, fig. 5501 (2003).

Eurycoma longifolia Jack var. *cohinchinensis* Pierre, Fl. Forest. Cochinch.: t. 292 (1893).

Local name (Representative specimens): Antong Sor (Angtung Sor, Antong Sar; 81, 123 [fl], 135 [fl & fr], 984 [fl]).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a small shrub 0.5–1 m tall, common in deciduous stands of Kampong Chhnang.

243. Meliaceae

Aglaia elaeagnoidea (A. Juss.) Benth., Fl. Austral. 1: 383 (1863); P. H. Hô, Ill. Fl. Vietnam 2: 400, fig. 5564 & 5580 (2003); H. Peng & Pannell, Fl. China 11: 123 (2008).

Nemeda elaeagnoidea A. Juss., Bull. Sci. Nat. Geol. 23: 239 (1830).

Aglaia hoanensis Pierre, Fl. Forest. Cochinch.: t. 336 (1895); Pellegr., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 759 (1911); Suppl.: 708 (1948).

Local names (Representative specimens): Bangkao Sva (323, 338, 887), Mean Prey (44, 226 [KT30-tree 04], 292, 1066 [KT31-tree 51]), Tro Yorng (452 [KT11-tree 56]), no local name (979).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Papua New Guinea, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree widely found in evergreen plots of Kampong Thom, and seedlings are common in understories. 'Bangkao Sva' is a local name for this species, but this is frequently misidentified as 'Mean Prey' (*Xerospermum*).

Aglaia lawii (Wright) C. J. Saldanha, Fl. Hassan Dist. [Saldanha & Nicolson]: 392 (1976); P. H. Hô, Ill. Fl. Vietnam 2: 398, fig. 5555 (2003); H. Peng & Pannell, Fl. China 11: 122 (2008).

Nimmoia lawii Wright, Calcutta J. Nat. Hist. 7: 13 (1847). *Aglaia littoralis* Zipp. ex Miq., Ann. Mus. Bot. Lugduno-

Batavi 4: 45 (1868).

Aglaia tetrapetala Pierre, Fl. Forest. Cochinch.: t. 337A (1897); Pellegr., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 773 (1911).

Local names (Representative specimens): Bangkao Korng Keng (449 [KT10-tree 15], 469), Bangkao Sva (289).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a tall tree found in some evergreen plots of Kampong Thom. While *A. elaeagnoidea* has leaves having 2–3 pairs of leaflets with 6–8 pairs of lateral veins, *A. lowii* has 5–11 leaflets with 8–13 pairs of lateral veins.

Chukrasia tabularis A.Juss., Mém. Mus. Hist. Nat. 19: 251 (1830); Pellegr., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 780 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 721 (1948); Dy Phon, Pl. Util. Cambod.: 153 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 387, fig. 5514 (2003); H. Peng & Mabb., Fl. China 11: 117 (2008).

Local name (Representative specimens): no local name (175, 222).

Distribution: Bhutan, Cambodia, China, India, Indonesia, Laos, Malaysia, Nepal, Sri Lanka, Thailand, Vietnam.

Observation: This is a tall tree occasionally found in deciduous stands of Kampong Chhnang. This species is distinct in that leaves are often partly bipinnate.

Sandoricum koetjape (Burm.f.) Merr., Philipp. J. Sci., C 7: 237 (1912); Dy Phon, Pl. Util. Cambod.: 546 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 392, fig. 5532 (2003).

Melia koetjape Burm.f., Fl. Ind. (N. L. Burman): 101 (1768).

Sandoricum indicum Cav., Diss. 7, Septima Diss. Bot.: 359 (1789); Pellegr., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 731 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 687 (1946).

Local name (Representative specimen): Komping Reach (464).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree rarely found in evergreen plots of Kampong Thom. One each tree was recorded in KT10 and KT24.

Walsura robusta Roxb., Hort. Bengal.: 32 (1814); Pellegr., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 785 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 722 (1948); P. H. Hô, Ill. Fl. Vietnam 2: 406, fig. 5591 (2003); H. Peng & Mabb., Fl. China 11: 120 (2008).

Local names (Representative specimens): no local name (43, 69), Bangkao Sva (973 [fl, KT22-tree 30]), Mean Prey (963 [KT21-tree 21], 978 [KT22-tree 56]).

Distribution: Bangladesh, Bhutan, Cambodia, China, India, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a tall tree grown up to 10–15 m. We found one each tree in KT21 and KT22, but both were misidentified as ‘Mean prey’ by local people. We also found a lot of seedlings in the evergreen plot KT21–24 in Kampong Thom.

250. Malvaceae

Bombax anceps Pierre, Fl. Forest. Cochinch.: t. 175 (1888); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 450 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 514, fig. 2059 (1999); Phengklai, Fl. Thailand 9: 11 (2005).

Bombax cambodiense Pierre, Fl. Forest. Cochinch.: t. 174 (1888); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 449 (1911).

Local name (Representative specimens): Rokar (155 [fl], 174, 204).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tree 6–10 m tall. This species is sporadically found in deciduous plots of Kampong Chhnang.

Colona auriculata (Desf.) Craib, Fl. Siam.: 188 (1925); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 547 (1910); Phengklai, Fl. Thailand 6: 67 (1993); P. H. Hô, Ill. Fl. Vietnam 1: 486, fig. 1952 (1999).

Diplophractum auriculatum Desf., Mém. Mus. Hist. Nat. 5: 34 (1819).

Columbia auriculata (Desf.) H. Baill., Adansonia 10: 195 (1871); Pierre, Fl. For. Cochinch., pl. 137 (1891); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 547 (1911).

Local name (Representative specimens): Preal (405 [fr], 407), no local name (1020).

Distribution: Cambodia, Laos, Indonesia, Philippines, Thailand, Vietnam.

Observation: This is a rare shrub in Kampong Thom; we found this species only in the vicinity of the regrowth plot RG12.

Helicteres angustifolia L., Sp. Pl. 2: 963 (1753); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 495 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 496, fig. 1990 (1999); Phengklai, Fl. Thailand 7: 563 (2001); Y. Tang *et al.*, Fl. China 12: 319 (2007).

Local name (Representative specimen): no local name (1003 [fl & fr])

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a small shrub, 1–2 m tall, and common in dry deciduous forest of Kampong Thom.

Helicteres hirsuta Lour., Fl. Cochinch. 2: 530 (1790);

Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 490 (1911); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 419 (1945); P. H. Hô, Ill. Fl. Vietnam 1: 497, fig. 1995 (1999); Dy Phon, Pl. Util. Cambod.: 655 (2000); Phengk-lai, Fl. Thailand 7: 563 (2001); Y. Tang *et al.*, Fl. China 12: 320 (2007).

Local name (Representative specimen): Priel Chrouk (421).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is a small shrub, 1–2 m tall, and common in open disturbed places of Kampong Thom and Kampong Chhnang.

Heritiera javanica (Blume) Kosterm., Madj. Ilmu Penge-tah. Indonesia 1: 58 (1959).

Tarrietia javanica Blume, Bijdr. Fl. Ned. Ind. 5: 227 (1825); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 410 (1945); Phengk-lai, Fl. Thailand 7: 577 (2001).

Tarrietia cochinchinensis Pierre, Fl. Forest. Cochinch. Fasc. 13: t. 205 (1889); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 482 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 511, fig. 2051 (1999).

Local name (Representative specimens): Daunchem (Doncherm; 28, 240, 340).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is a tall tree up to 15–30 m, widely found in evergreen plots of Kampong Thom.

Microcos tomentosa Sm., Cycl. [A. Rees] (London ed.) 23: 2 (1813); Phengk-lai, Fl. Thailand 6: 37 (1993); Dy Phon, Pl. Util. Cambod.: 438 (2000).

Grewia tomentosa (non Roxb. ex Hook. & Arn.) P. H. Hô, Ill. Fl. Vietnam 1: 486, fig. 1950 (1999).

Grewia paniculata Roxb. [Fl. Ind. 2: 591, 1832, nom. il-leg.] ex DC., Prod. 1: 510 (1824); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 544 (1911); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 455 (1945); P. H. Hô, Ill. Fl. Vietnam 1: 484, fig. 1945 (1999).

Local names (Representative specimens): To (136), Poplear (234, 255), not recorded (959 [KT21-tree 26]).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tall deciduous tree up to 15–30 m, widely found in primary and secondary evergreen forests of Kampong Thom. In young trees, leaf apex is often bifurcated.

Pterospermum lanceifolium Roxb., Fl. Ind. (Roxburgh) 3: 163 (1832); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 504 (1911); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 433 (1945); P. H. Hô, Ill. Fl. Vietnam 1: 501, fig. 2008 (1999); Y. Tang *et al.*, Fl. China 12: 329 (2007).

Local names (Representative specimens): Po plear (15), Poplear Preus (300, 318 [KT21-tree 16], 971 [KT22-

tree 19]).

Distribution: Cambodia (new record), China, India, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree common in some primary evergreen plots of Kampong Thom; KT21–24 and KT25–28. This species is similar to *P. grewiaefolium* in having pectinate-laciniate stipule, but this has filament like deciduous stipules branching 2–3.

Sterculia hymenocalyx K. Schum., Bot. Jahrb. Syst. 24 (Beibl. 58): 18 (1897); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 467 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 506, fig. 2028 (1999).

Local name (Representative specimens): Kong Kang (461, 474, 479).

Distribution: Cambodia, Laos, Vietnam.

Observation: We found three young trees in a clearing within the evergreen plot KT9–12. This species is distinguished from *S. stigmarota* in having leaves almost glabrous below.

Sterculia stigmarota Pierre, Fl. Forest. Cochinch. Fasc. 12: t. 189 (1888); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 472 (1911); P. H. Hô, Ill. Fl. Vietnam 1: 509, fig. 2042 (1999).

Local name (Representative specimens): No local name (321 [KT22-tree 10], 899, 1067 [KT31-tree 04]).

Distribution: Cambodia, Vietnam.

Observation: This is a tall tree rarely found in evergreen stands of Kampong Thom. We found two trees in PSPs; a tree KT22-tree 10 (specimen 321) was misidentified as ‘Plon Keo’ (*Memecylon*) and another tree KT31-tree 04 (specimen 1067) was misidentified as ‘Atith’ (*Dehaasia* or *Phoebe*) by local people. This species is distinguished from *S. hymenocalyx* in leaves densely velvety below and tomentose petioles.

252. Thymelaeaceae

Wikstroemia polyantha Merr., Philipp. J. Sci., C 10 (5): 332 (1915); B. Peterson, Fl. Thailand 6: 239 (1997).

Local name (Representative specimen): no local name (416).

Distribution: Cambodia (new record), Indonesia, Malaysia, Philippines, Thailand.

Observation: This is a small shrub less than 1.5 m tall. We collected this species in a dry deciduous stand of Kampong Thom where *Pinus merkusii* Jungh. & de Vriese is associated.

256. Dipterocarpaceae

Anisoptera costata Korth., Verh. Nat. Gesch. Ned. Bezitt., Bot.: 65 (1841); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 13 (1990); Dy Phon, Pl. Util. Cambod.: 37 (2000).

Anisoptera cochinchinensis Pierre, Pl. Util. Col. Franc.: 298 (1886); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 367 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 409 (1943); P. H. Hô, Ill. Fl. Vietnam 1: 438, fig. 1764 (1999).

Local name (Representative specimens): Phdiek (59, 92, 266, 312).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tall evergreen tree up to 30–37 m, widely found in primary evergreen plots and regrowth plots of Kampong Thom.

Dipterocarpus alatus Roxb. & G. Don, Gen. Hist. 1: 813 (1831); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 362 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 340 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 41 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 434, fig. 1741 (1999); Dy Phon, Pl. Util. Cambod.: 243 (2000).

Local name (Representative specimen): Chhoeuteal Masao (383).

Distribution: Bangladesh, Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tall evergreen tree grown up to 30–35 m, and widely found in evergreen forests of Kampong Thom. Leaf shape is similar to *D. costatus*, but this species is distinguished from *D. costatus* by larger leaves (6–26 cm × 10–30 cm) with 15–23 pairs of lateral leaf veins and wider wings of fruits.

Dipterocarpus costatus C. F. Gaertn., Suppl. Carp. 3: 50 (1805); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 340 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 37 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 435, fig. 1752 (1999); Dy Phon, Pl. Util. Cambod.: 244 (2000).

Local names (Representative specimens): Chhoeuteal (Chhertial; 105, 357 [KT29-tree 60]), Chhoeu Teal Preus (239, 1068 [KT31-tree 07]), Chhoeuteal Bankouy (282 [KT26-tree 44], 283).

Distribution: Bangladesh, Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall evergreen tree up to 30–35 m, growing occasionally in some evergreen plots of Kampong Thom (KT09–12 and KT26–30). Leaf shape is similar to *D. alatus*, but this species is distinguished from *D. alatus* by smaller leaves (4–9 cm × 9–22 cm) with 10–16 pairs of lateral leaf veins and narrower wings of fruits.

Dipterocarpus intricatus Dyer, J. Bot. 12: 105 (1874); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 360 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 340 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 44 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 435, fig. 1755 (1999); Dy Phon, Pl. Util. Cambod.: 245 (2000).

Local name (Representative specimens): Trach (75,

172, 192, 197, 373).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a deciduous tree 8–12 m tall, occasionally found in regrowth plots of Kampong Thom and deciduous plots of Kampong Chhnang.

Dipterocarpus obtusifolius Teijsm. ex Miq., Ann. Mus. Bot. Lugduno-Batavi 1: 214 (1864); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 358 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 338 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 26 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 436, fig. 1759 (1999); Dy Phon, Pl. Util. Cambod.: 245 (2000).

Local name (Representative specimens): Tbeng (Tbeing; 180 [fl], 218, 438).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This species is a deciduous tree 8–14 m tall and a dominant element of deciduous (dry dipterocarp) forests in Kampong Thom and Kampong Chhnang. Large leaf size and oblong leaf shape are similar to *D. intricatus*, but this species has more hairy leaves with more distinct lateral veins and undulate margins.

Hopea odorata Roxb., Pl. Coromandel 3: 7, t. 210 (1811); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 372 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 345 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 69 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 439, fig. 1722 (1999); Dy Phon, Pl. Util. Cambod.: 348 (2000); K. M. Matthew, Blumea 49: 379 (2004).

Hopea odorata var. *flavescens* Pierre, Fl. Forest. Cochinch. 3 (16): pl. 244 (1891).

Local name (Representative specimen): Korkei (97).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall evergreen tree rarely found in evergreen stands of Kampong Thom. We collected only one specimen in the vicinity of plot KT25–28.

Hopea recopei Pierre ex Laness., Pl. Util. Col. Franc.: 301 (1886); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 83 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 440, fig. 1775 (1999); Dy Phon, Pl. Util. Cambod.: 349 (2000).

Local name (Representative specimen): Chromas Troung (291).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a tall evergreen tree rarely found in evergreen stands of Kampong Thom. We found a young tree in plot KT27. This species is characteristic of oblong leaves of 16–30 cm × 5.5–8 cm and well-branched inflorescences with many flowers.

Shorea guiso (Blanco) Blume, Mus. Bot. 2: 34 (1856); P. H. Hô, Ill. Fl. Vietnam 1: 442, fig. 1783 (1999).

Mocanera guiso Blanco, Fl. Filip. [F. M. Blanco]: 449

(1837).

Shorea vulgaris Pierre ex Laness., Pl. Util. Col. Franc.: 301 (1886); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 380 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 350 (1943); Dy Phon, Pl. Util. Cambod.: 557 (2000).

Local name (Representative specimens): Chor Chong (281, 286).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is a tall evergreen tree up to 20–32 m, occasionally but widely found in evergreen plots of Kampong Thom. This species is similar to *Shorea roxburghii*, but leaf apex is acuminate (obtuse in *S. roxburghii*) and shoots are dark-colored.

Shorea henryana Pierre, Pl. Util. Col. Franc.: 302 (1886); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 99 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 443, fig. 1784 (1999).

Local name (Representative specimen): Lumbor (483).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is an evergreen tree up to 20–34 m tall, occasionally but widely found in evergreen plots of Kampong Thom. This species is characterized by oblong-lanceolate leaves of 6.5–12.5 × 2.5–5 cm.

Shorea obtusa Wall. ex Blume, Mus. Bot. 2: 32, t. 8 (1856); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 378 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 349 (1943); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 86 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 441, fig. 1778 (1999); Dy Phon, Pl. Util. Cambod.: 557 (2000).

Local names (Representative specimens): Phchek (Pho Chiek; 179, 219, 541), Koki Kambor (894), Chormas Troung (37, maybe misidentified by a local people).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a tree 10–12 m tall, occasionally found in deciduous stands of Kampong Chhnang and evergreen forest in Kampong Thom. This species has oblong leaves obtuse at apex and sparsely pubescent below. Young shoots are hairy. The *matK* sequences between two locations differ in 6 bases and thus *S. obtusa* could include two cryptic species.

Shorea roxburghii G. Don, Gen. Hist. 1: 813 (1831); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 96 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 441, fig. 1779 (1999); Dy Phon, Pl. Util. Cambod.: 558 (2000) [as '*Shorea roxburghiana*'].

Local name (Representative specimens): Popel (74, 198, 423).

Distribution: Cambodia, Laos, Malaysia, Myanmar,

Thailand, Vietnam.

Observation: This is a deciduous tree 10–12 m tall, common in dry dipterocarp plots of Kampong Thom and Kampong Chhnang. This species is similar to *Shorea obtusa*, but leaves and shoots are usually glabrous.

Shorea siamensis Miq., Ann. Mus. Bot. Lugduno-Batavi 1: 214 (1863); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 94 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 442, fig. 1780 (1999); Dy Phon, Pl. Util. Cambod.: 558 (2000). *Pentacme siamensis* Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 39 (2): 66 (1870); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 385 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 352 (1943).

Local name (Representative specimens): Raing Phnom (126, 220).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a deciduous tree 7–8 m tall, common in dry dipterocarp plots of Kampong Chhnang. This species is characteristic of cordate leaf base.

Vatica odorata (Griff.) Symington, J. Malayan Branch Roy. Asiat. Soc. 19: 156 (1941); Smitinand *et al.*, Fl. Cambodge, Laos & Vietnam 25: 52 (1990); P. H. Hô, Ill. Fl. Vietnam 1: 445, fig. 1792 (1999); Dy Phon, Pl. Util. Cambod.: 624 (2000).

Synaptea odorata Griff., Not. Pl. Asiat. 4: 516 (1854).

Vatica astrotricha Hance, J. Bot. 14: 241 (1876); H. P. Guérin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 391 (1910); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 360 (1943).

Local name (Representative specimens): Chromas (Chresmas; 4, 100, 232, 365, 468).

Distribution: Cambodia, China, Laos, Malaysia, Myanmar, Philippines, Vietnam.

Observation: This is an evergreen tree 20–25 m tall, frequently found in all evergreen PSPs of Kampong Thom.

271. Capparaceae

Capparis micracantha DC., Prodr. [A. P. de Candolle] 1: 247 (1824); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 186 (1908); Chayam., Fl. Thailand 5: 246 (1991); P. H. Hô, Ill. Fl. Vietnam 1: 593, fig. 2371 (1999); Dy Phon, Pl. Util. Cambod.: 257 (2000); M. L. Zhang & G. C. Tucker, Fl. China 7: 440 (2005).

Local name (Representative specimen): Kanhchoeu Beydach (481).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a tall tree rarely found in evergreen stands of Kampong Thom. In PSPs, only one tree is recorded (KT04-tree 36) and we found this species in the

vicinity of another evergreen plot (KT09-12, specimen 481).

Stixis scandens Lour., Fl. Cochinch. 1: 295 (1790); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 206 (1909); P. H. Hô, Ill. Fl. Vietnam 1: 601, fig. 2404 (1999); M. L. Zhang & G. C. Tucker, Fl. China 7: 440 (2005).

Local name (Representative specimen): Not recorded (905).

Distribution: Cambodia, China, India, Laos, Myanmar, Vietnam.

Observation: This is a vine rarely found in regrowth stands of Kampong Thom.

277. Olacaceae

Anacolosa clarkii Pierre, Fl. Forest. Cochinch.: t. 266 (1892); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 816 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 737 (1948); Dy Phon, Pl. Util. Cambod.: 34 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 122, fig. 4423 (2003).

Local name (Representative specimens): no local name (34), Vor Pong Kro Poeu (931).

Distribution: Cambodia, Laos, Vietnam.

Observation: This is a woody vine occasionally found in evergreen stands of Kampong Thom.

Anacolosa griffithii Mast., Fl. Brit. India [J. D. Hooker] 1: 580 (1875); Pierre, Fl. Forest. Cochinch.: t. 266B (1892); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 817 (1911); P. H. Hô, Ill. Fl. Vietnam 2: 122, fig. 4424 (2003).

Local name (Representative specimen): no local name (1061 [KT31-tree 43]).

Distribution: Cambodia, Malaysia, Myanmar, Thailand.

Observation: This is a small tree; we collected only one tree in plot KT31 where the tree was recorded as 'Pring' (*Syzygium* sp.).

Olax scandens Roxb., Pl. Coromandel 2: 2 (1798); Kurz, Fl. Brit. India [J. D. Hooker] 1: 575 (1875); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 814 (1911); Sleumer, Fl. Males., Ser. 1, Spermat. 10 (1): 7 (1984); P. H. Hô, Ill. Fl. Vietnam 2: 121, fig. 4419 (2003).

Local name (Representative specimen): Vor Kanchoeu Baydach (892).

Distribution: Cambodia, India, Indonesia, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a scandent woody vine. We collected a sterile plant of this species in the understory of evergreen plot KT21.

Olax wightiana Wall. ex Wight & Arn., Prodr. Fl. Ind. Orient. 1: 89 (1834); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 812 (1911); P. H. Hô, Ill. Fl. Vietnam 2: 121, fig. 4420 (2003).

Local name (Representative specimens): Vor Kralet (118, 1093, 1113 [fl], 1119 [fr]).

Distribution: Cambodia, China (Hainan), Vietnam.

Observation: This is a scandent woody vine occasionally found in open thickets and margins of the secondary forests in Kampong Chhnang.

278. Opiliaceae

Cansjera rheedei J.F.Gmel., Syst. Nat., ed. 13 [bis]. 2: 280 (1791); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 809 (1911); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 734 (1948); Hiepko, Fl. Males., Ser. 1, Spermat. 10: 50 (1984); P. H. Hô, Ill. Fl. Vietnam 2: 124, fig. 4431 (2003).

Local name (Representative specimens): Vor Koleitt (130, 1089 [fr], 1106).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Nepal, Philippines, Sri Lanka, Vietnam.

Observation: This is a scandent woody vine rare in open deciduous stands of Kampong Chhnang.

279. Santalaceae

Dendrotrophe varians (Blume) Miq., Fl. Ned. Ind. 1 (1): 780 (1856); Nianhe & M. G. Gilbert, Fl. China 5: 216 (2003); J. M. Macklin & J. Parn., Fl. Thailand 9: 60 (2005).

Henslowia varians Blume, Mus. Bot. 1: 244, t. 43 (1851).

Local name (Representative specimen): Vor Dek (1014).

Distribution: Australia, Cambodia, China, Indonesia, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a rare woody vine collected only once in a deciduous plot KT13 of Kampong Thom.

Scleropyrum pentandrum (Dennst.) Mabb., Taxon 26: 533 (1977).

Pothos pentandrus Dennst., Schlüssel Hortus Malab.: 33 (1818).

Scleropyrum wallichianum Arn., Mag. Zool. Bot. 2: 550 (1838); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 221 (1915); Dy Phon, Pl. Util. Cambod.: 551 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 126, fig. 4438 (2003); Nianhe & M. G. Gilbert, Fl. China 5: 210 (2003).

Local names (Representative specimens): Khla Buos (125 [fl]), Bonla Buos (Bonlar Buas; 216, 542, 1115 [fr]), no local name (1049, 1057).

Distribution: Cambodia, China, India, Laos, Malaysia, Myanmar, Sri Lanka, Vietnam.

Observation: This is a shrub or small tree 1.5–3 m tall, having spines on the trunk. This species is sporadically found in deciduous stands of Kampong Chhnang. The plants collected in a regrowth plot RG13 (1049) and its vicinity (1057) differ from the plants of Kampong Chhnang in 2 bases of *matK* sequence and in less spiny stems; those could be distinguished as *S. mekongense*.

Gagnep. but further studies are needed.

280. Loranthaceae

Dendrophthoe pentandra (L.) Miq., Fl. Ned. Ind. 1 (1): 818 (1856); Barlow, Fl. Males., Ser. 1, Spermat. 13: 318 (1997); Fl. Thailand 7: 675 (2002); P. H. Hô, Ill. Fl. Vietnam 2: 134, fig. 4470 (2003); Qiu & M. G. Gilbert, Fl. China 5: 277 (2003).

Loranthus pentandrus L., Mant. Pl. 1: 63 (1767); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 5: 200 (1915).

Local name (Representative specimens): Bon Nheir Koek (119 [fl], 1117 [fl]).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a parasitic epiphyte sporadically found in deciduous stands of Kampong Chhnang.

291. Ancistrocladaceae

Ancistrocladus tectorius (Lour.) Merr., Lingnan Sci. J. 6: 329 (1930); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 395 (1910); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 390 (1945); P. H. Hô, Ill. Fl. Vietnam 1: 446, fig. 1798 (1999); Yin Z. Wang & Gereau, Fl. China 13: 208 (2007). *Bembix tectoria* Lour., Fl. Cochinch. 1: 282 (1790).

Ancistrocladus cochinchinensis Gagnep., Notul. Syst. (Paris) 1: 115 (1909); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 394 (1910); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 390 (1945); P. H. Hô, Ill. Fl. Vietnam 1: 446, fig. 1797 (1999); Dy Phon, Pl. Util. Cambod.: 34 (2000).

Ancistrocladus extensus Wall. ex Planch., Ann. Sci. Nat., Bot. sér. 3, 13: 318 (1849); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 395 (1910).

Ancistrocladus harmandii Gagnep., Notul. Syst. (Paris) 1: 114 (1909); Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 397 (1910); Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 390 (1945).

Local name (Representative specimen): Khan Ma (9).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, Vietnam.

Observation: This is a woody vine common in evergreen forests of Kampong Thom.

328. Lecythidaceae

Barringtonia acutangula (L.) Gaertn., Fruct. Sem. Pl. 2: 97 (1791); Payens, Blumea 15: 226 (1967); P. H. Hô, Ill. Fl. Vietnam 2: 23, fig. 4027 (2003).

Eugenia acutangula L., Sp. Pl. 1: 471 (1753).

Barringtonia edaphocarpa Gagnep., Bull. Mus. Natl. Hist. Nat. 26: 73 (1920); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 862 (1921).

Barringtonia micrantha Gagnep., Notul. Syst. (Paris) 3:

385 (1918); Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 856 (1921); P. H. Hô, Ill. Fl. Vietnam 2: 25, fig. 4035 (2003).

Local name (Representative specimen): Raing (1026).

Distribution: Afghanistan, Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam.

Observation: This is a tree. We collected only one specimen in a regrowth plot of Kampong Thom, RG13.

Careya arborea Roxb. & Roxb., Pl. Coromandel 3: 14, t. 218 (1819); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 2: 852 (1921); Dy Phon, Pl. Util. Cambod.: 134 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 22, fig. 4025 (2003); K. M. Mathew, Blumea 49: 385 (2004).

Local name (Representative specimens): Kandaul (Kandol; 79, 142, 380, 425, 1008 [fr]).

Distribution: Afghanistan, Cambodia, India, Laos, Myanmar, Nepal, Pakistan, Sri Lanka, Thailand, Vietnam.

Observation: This is a small deciduous tree 6–15 m tall. This species is occasionally found in deciduous and regrowth plots of Kampong Thom and also in community forest plots of Kampong Chhnang.

330. Pentaphylacaceae

Anneslea fragrans Wall., Pl. Asiat. Rar. (Wallich). 1: 5 (1829); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 335 (1910); P. H. Hô, Ill. Fl. Vietnam 1: 413, fig. 1658 (1999); Min & B. M. Bartholomew, Fl. China 12: 434 (2007).

Local name (Representative specimen): Chey Sleuk Thom (1011).

Distribution: Cambodia, India, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a rare shrub; we collected only one tree in a deciduous plot of Kampong Thom, KT13.

Ternstroemia wallichiana Ridl., Fl. Malay Penins. 1: 198 (1922); Keng, Fl. Thailand 2: 154 (1972).

Erythrochiton wallichianum Griff., Proc. Linn. Soc. London 1: 282 (1846).

Ternstroemia penangiana Choisy, Mém. Soc. Phys. Genève 14: 110 (1855); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 333 (1910); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 279 (1943); P. H. Hô, Ill. Fl. Vietnam 1: 414, fig. 1674 (1999).

Local names (Representative specimens): Plorn (Phlong, 284 [fr, KT28-tree 11], 1064), Kramoul (254 [KT27-tree 19]; probably misidentified as *Acronychia pendunculata* by a local people).

Distribution: Cambodia, Malaysia, Thailand, Vietnam.

Observation: This is a small tree and rarely found in evergreen plots (KT27 and 28).

331. Sapotaceae

Chrysophyllum roxburghii G. Don, Gen. Hist. 4: 33 (1837).

Donella lanceolata (Blume) Aubrév., Fl. Cambodge, Laos & Vietnam 3: 64 (1963); P. H. Hô, Ill. Fl. Vietnam 1: 637, fig. 2545 (1999).

Nycterisition lanceolatum Blume, Bijdr. Fl. Ned. Ind. 13: 676 (1826).

Donella roxburghii (G. Don) Pierre ex Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 897 (1930).

Local names (Representative specimens): Kro Moun (273 [KT25-tree 11], 328, 450 [KT10-tree 22], 962 [KT21-tree 41]), Pich Chanva (26, maybe misidentified as *Aporosa planchoniana* by a local people).

Distribution: Cambodia, India, Laos, Malaysia, Philippines, Solomon Islands, Vietnam.

Observation: This is a tall tree occasionally found in some evergreen plots (KT04, KT07, KT10 and KT25).

Madhuca butyrospermoides A. Chev., Rev. Bot. Appl. Agric. Trop. 23: 150 (1943); Aubrév., Fl. Cambodge, Laos & Vietnam 3: 41 (1963); P. H. Hô, Ill. Fl. Vietnam 1: 632, fig. 2526 (1999).

Local name (Representative specimens): not recorded (1005, 1031).

Distribution: Cambodia, Vietnam.

Observation: This is a small tree collected in regrowth plot 13 and in the vicinity of deciduous plot KT14 of Kampong Thom.

Madhuca kompongsonensis Aubrév., Fl. Cambodge, Laos & Vietnam 3: 40 (1963).

Local name (Representative specimens): Sro Kom (247, 363, 378, 413).

Distribution: Cambodia.

Observation: This is a small tree 7–15 m tall, and common in regrowth plots of Kampong Thom.

332. Ebenaceae

Diospyros castanea (Craib) H. R. Fletcher, Bull. Misc. Inform. Kew 1937: 382 (1937); P. H. Hô, Ill. Fl. Vietnam 1: 644, fig. 2573 (1999); Phengklai, Fl. Thailand 2: 299 (1981). —**Fig. 8a.**

Maba castanea Craib, Bull. Misc. Inform. Kew 1915: 432 (1915); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 978 (1930).

Local name (Representative specimen): Chek Mao (1121).

Distribution: Cambodia, Laos, Thailand.

Observation: This is a deciduous tree up to 15 m tall and occasionally found in deciduous forests in Kampong Chhnang.

Diospyros ehretioides Wall. ex G. Don, Gen. Hist. 4: 40 (1837); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 925 (1930); Phengklai, Fl. Thailand 2: 319 (1981); Li *et al.* Fl. China 15: 233 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 646, fig. 2584 (1999); Dy Phon, Pl. Util. Cambod.: 239 (2000). —**Fig. 8b.**

Local names (Representative specimens): Lo Maing (149), Ming Maing (424).

Distribution: Cambodia, China, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This tree is rarely found in dry deciduous stands of Kampong Chhnang (149) and regrowth stands of Kampong Thom (424).

Diospyros filipendula Pierre ex Lecomte, Notul. Syst. (Paris) 4: 102 (1928); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 929 (1930); Phengklai, Fl. Thailand 2: 365 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 647, fig. 2588 (1999); Dy Phon, Pl. Util. Cambod.: 240 (2000). —**Fig. 8c.**

Local name (Representative specimens): Charng Narng (Chang Nang; 33, 262, 297, 956).

Distribution: Cambodia, Laos, Malaysia, Thailand, Vietnam.

Observation: This is an evergreen tree 8–15 m tall common in primary evergreen and regrowth plots of Kampong Thom. Leaf shape is similar to *Diospyros buxifolia* Hiern, but this species has larger leaves rounded at the base (acute in *D. buxifolia*) and longer pedicels.

Diospyros pilosanthera Blanco, Fl. Filip. [F. M. Blanco]: 304 (1837); Phengklai, Fl. Thailand 2: 347 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 654, fig. 2618 (1999); Dy Phon, Pl. Util. Cambod.: 242 (2000). —**Figs. 8d & 9a.**

Diospyros helferi C. B. Clarke, Fl. Brit. India [J. D. Hooker] 3: 569 (1882); Lecomte, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 970 (1930).

Local name (Representative specimens): Khas (420), Tro Yoeung (Tro Yeong; 133, 199, 446 [KT09-tree 23], 453).

Distribution: Cambodia, Indonesia, Malaysia, Philippines, Thailand, Vietnam.

Observation: This is an evergreen tree 20–30 m tall, widely found in primary and regrowth plots of Kampong Thom and also in community forest plot of Kampong Chhnang. The *matK* sequences between two specimens (133 & 420) differ in two bases and thus *D. pilosanthera* could include two cryptic species.

Diospyros undulata Well. ex G. Don., Gen. Hist. 4: 40 (1837); P. H. Hô, Ill. Fl. Vietnam 1: 658, fig. 2635 (1999). var. *cratericalyx* (Craib) Bakh., Bull. Jard. Bot. Buitenzorg Ser. 3, 15: 281 (1938); Phengklai, Fl. Thailand 2: 355, fig. 39 (1981). —**Fig. 9b.**

Local name (Representative specimens): Chhoeu Phleung (Chheu Phleung; 27, 246 [fr]).

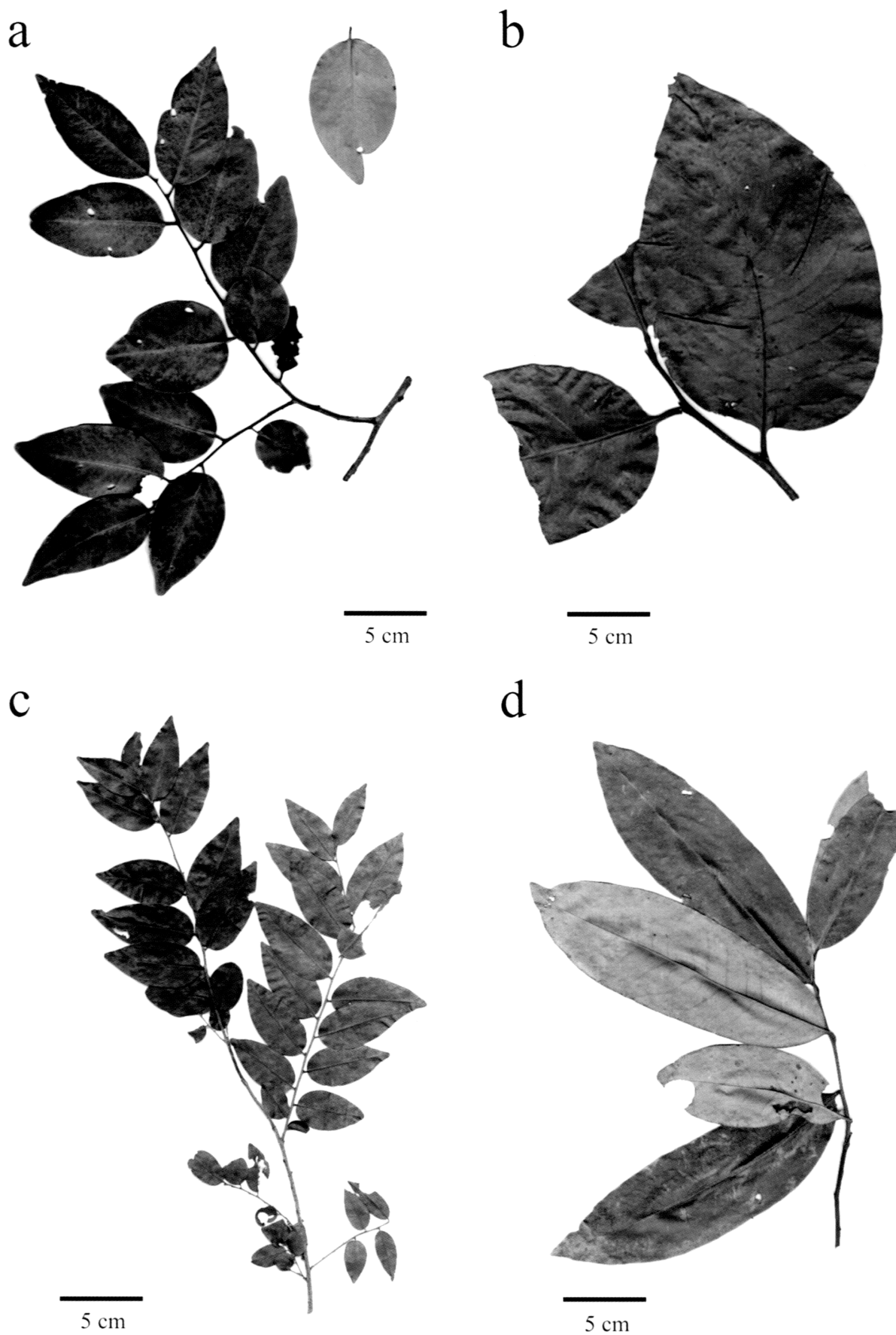


Fig. 8. *Diospyros*, Ebenaceae. a: *D. castanea* (1121). b: *D. ehretioides* (424). c: *D. filipendula* (297). d: *D. pilosanthera* (133).

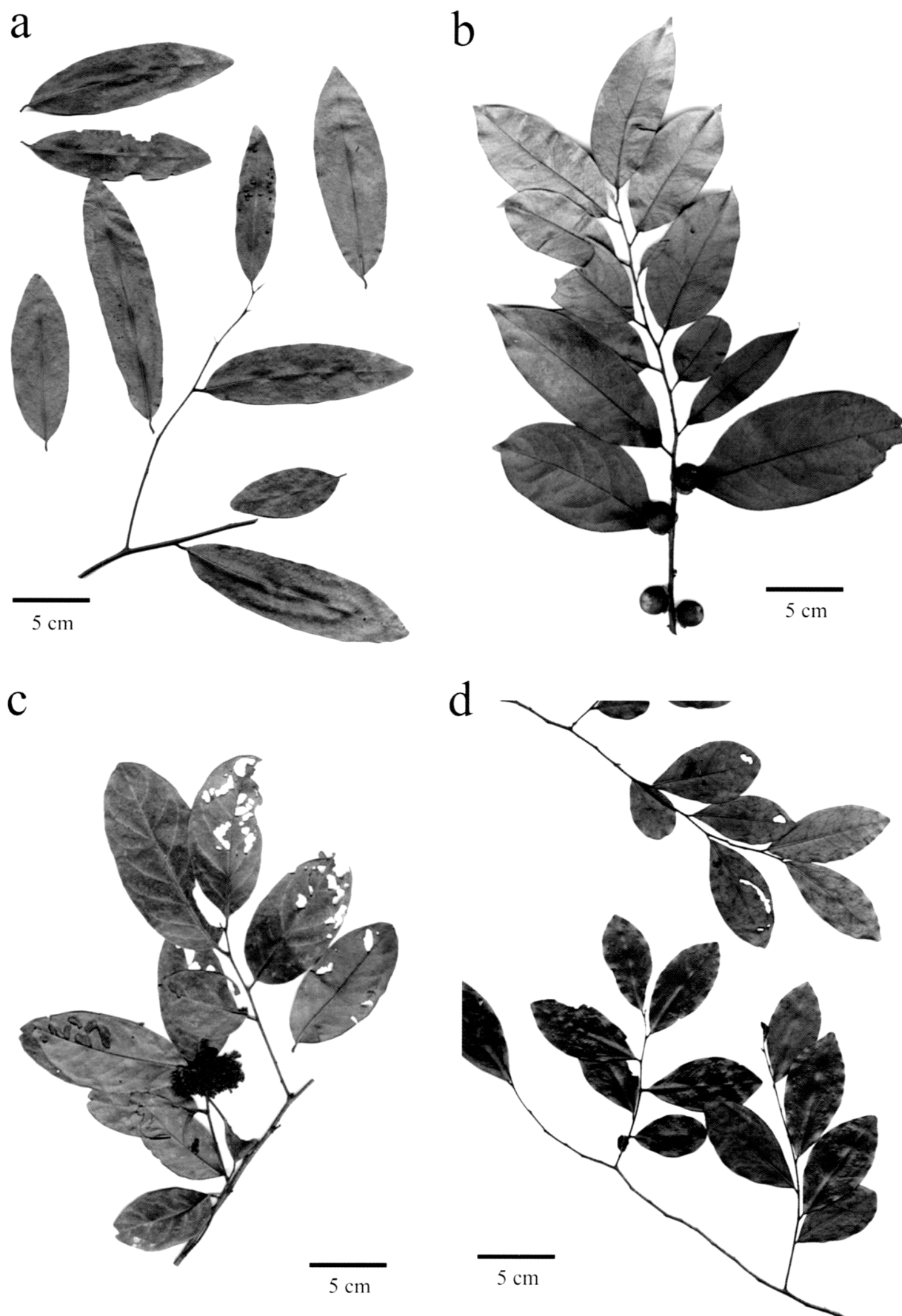


Fig. 9. *Diospyros*, Ebenaceae (continued). a: *D. pilosanthera* (420). b: *D. undulata* var. *cratericalyx* (246). c: *D. venosa* (73). d: *D. vera* (1099).

Distribution: Cambodia (new record), Malaysia, Myanmar, Thailand, Vietnam.

Observation: This tall evergreen tree is widely found in evergreen plots of Kampong Thom.

Diospyros venosa Wall. ex A. DC., Prodr. [A. P. de Candolle] 8: 233 (1844); Phengklai, Fl. Thailand 2: 295 (1981); P. H. Hô, Ill. Fl. Vietnam 1: 659, fig. 2638 (1999).

Maba merguensis Hiern, Trans. Cambridge Philos. Soc. 12: 134 (1873); Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 977 (1930); Dy Phon, Pl. Util. Cambod.: 243 (2000). — **Fig. 9c.**

Local names (Representative specimens): Angkot Khmao (25), Angkat Khmao (73, 271 [KT25-tree 01], 330 [KT22-tree 53], 445 [KT09-tree 17], 462), Chheu Khmao (plot record for KT09-tree 17).

Distribution: Cambodia, India, Indonesia, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is an evergreen tree 10–18 m tall, and common in primary evergreen and regrowth plots of Kampong Thom.

Diospyros vera A. Chev., Jard. Bot. Saigon 31: 65 (1919). — **Fig. 9d.**

Diospyros ferrea (Willd.) Bakh., Gard. Bull. Straits Settlement. 7: 162 (1933); Phengklai, Fl. Thailand 2: 292 (1981); Li *et al.* Fl. China 15: 234 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 646, fig. 2585 (1999).

Local name (Representative specimens): Chhoeu Khmao (1045, 1099).

Distribution: Australia, Cambodia, China, India, Japan, Laos, Malaysia, Taiwan, Thailand, Vietnam.

Observation: This is a small or tall tree recorded in some plots of Kampong Thom (KT1–4, KT5–8, and KT9–12). We collected this species in Regrowth Plot 13 of Kampong Thom (1045) and also in a deciduous stand of Kampong Chhnang (1099). This species is characteristic of coriaceous leaves 4–8 cm long and 3–4 cm wide. This species ('Chhoeu Khmao') is easily distinguished from *D. venosa* ('Angkot Khmao') in smaller and thicker leaves, but five trees recorded as 'Chhoeu Khmao' in KT09 were *D. venosa*; this confusion is probably due to similar local names of two species. The *matK* sequences between two locations differ in one base and thus *D. vera* could include two cryptic species.

333. Primulaceae

Ardisia crenata Sims, Bot. Mag. 45: t. 1950 (1817); J. Chen & Pipoly, Fl. China 15: 19 (1996); K. Larsen & C. M. Hu, Fl. Thailand 6: 135 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 686, fig. 2748 (1999); Dy Phon, Pl. Util. Cambod.: 47 (2000); C. M. Hu & J. E. Vidal, Fl. Cambodge, Laos & Vietnam 32: 104 (2004).

Local name (Representative specimen): Lev Aov (66).

Distribution: Cambodia, China, Japan, India, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a small shrub less than 1 m. We found this species in the understory of plot KT21–24.

Ardisia helferiana Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 42 (2): 86 (1873); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 845 (1930); K. Larsen & C. M. Hu, Fl. Thailand 6: 118 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 695, fig. 2784 (1999); Dy Phon, Pl. Util. Cambod.: 47 (2000); C. M. Hu & J. E. Vidal, Fl. Cambodge, Laos & Vietnam 32: 82 (2004).

Local name (Representative specimen): Sromdav (243).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a small shrub 1.5–2 m tall. We found this species along the margin of an evergreen stand neighboring to a clearing in Kampong Thom.

Ardisia polysticta Miq., Fl. Ned. Ind., Eerste Bijv. 576 (1861); C. M. Hu & J. E. Vidal, Fl. Cambodge, Laos & Vietnam 32: 134 (2004).

Ardisia virens Kurz, Forest Fl. Burma 2: 575 (1877); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 868 (1930); J. Chen & Pipoly, Fl. China 15: 20 (1996); K. Larsen & C. M. Hu, Fl. Thailand 6: 134 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 692, fig. 2773 (1999).

Local name (Representative specimen): Not recorded (903).

Distribution: Cambodia, China, India, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a shrub, less than 2 m tall, occasionally found in the understory of plot KT21.

335. Symplocaceae

Symplocos acuminata (Blume) Miq., Fl. Ned. Ind. 1 (2): 467 (1859).

Dicalix acuminatus Blume, Bijdr. Fl. Ned. Ind. 17: 1119 (1826).

Myrtus laurina Retz., Observ. Bot. (Retzius) 4: 26 (1787). *Symplocos laurina* (non Retz.) Wall. ex G. Don, Gen. Hist. 4: 3 (1837); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 998 (1933); Noot., Fl. Thailand 2: 456 (1981).

Symplocos cochinchinensis (Lour.) S. Moore var. *laurina* (Retz.) Noot., Leiden Bot. Ser. 1: 156 (1975); Y. F. Wu & Noot., Fl. China 15: 249 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 667, fig. 2672 (1999).

Local names (Representative specimens): Achsath (504), Lort (94, 400, 1015).

Distribution: Cambodia, China, Japan, India, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is an evergreen tree 10–20 m tall. In Kampong Thom, this species is found in low frequency

in evergreen plots (KT07, 09, 10, 11, 26, 30), growing as a tall tree. This species is a member of *Symplocos cochinchinensis* complex. Young shoots and the lower surface of leaves (especially veins) are densely hairy in *S. cochinchinensis*, but are mostly glabrous in *S. acuminata*.

Symplocos racemosa Roxb., Hort. Bengal.: 40 (1814); Fl. Ind. 2: 539 (1832); Guillaumin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1026 (1933); Y. F. Wu & Noot., Fl. China 15: 247 (1996); P. H. Hô, Ill. Fl. Vietnam 1: 673, fig. 2696 (1999).

Local names (Representative specimens): Anhchey (522), Laing Chey Domrey (983, 988).

Distribution: Cambodia, China, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a small tree rarely found in deciduous stands of Kampong Chhnang and Kampong Thom.

350. Rubiaceae

Benkara armigera (K. Schum.) Ridsdale, Reinwardtia 12: 298 (2008).

Randia armigera K. Schum., Bot. Tidsskr. 24: 332 (1902). *Randia fasciculata* var. *velutina* Pierre ex Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 226 (1923); P. H. Hô, Ill. Fl. Vietnam 3: 159, fig. 8333 (2000).

Local name (Representative specimens): Anh Chanh Prey (885 [fl], 941 [fr]).

Distribution: Cambodia, Malaysia, Thailand, Vietnam.

Observation: We collected this shrub (1.5 m tall) in the evergreen plot KT 21.

Canthium cambodianum Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 291 (1924).

Local name (Representative specimen): no local name (2632).

Distribution: Cambodia.

Observation: We collected sterile plants of this species near the evergreen plot KT22 of Kampong Thom.

Catunaregam tomentosa (Blume ex DC.) Tirveng., Bull. Mus. Natl. Hist. Nat., Ser. 3, Bot. 35: 8 (1978); Taxon 27: 515 (1979); Dy Phon, Pl. Util. Cambod.: 144 (2000).

Gardenia tomentosa Blume ex DC., Prodr. [A. P. de Candolle] 4: 379 (1830).

Randia tomentosa (Blume ex DC.) Hook.f., Fl. Brit. India [J. D. Hooker] 3: 110 (1880), nom. illeg.; Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 233 (1923).

Local names (Representative specimens): Levieng (151), Rovieng (500).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small tree 2–4 m tall. We collected this species in dry and open forests of Kampong Thom and Kampong Chhnang.

Coptosapelta flavescens Korth., Ned. Kruidk. Arch. 2: 113 (1851).

Coptosapelta flavescens var. *dongnaiensis* Pierre ex Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 54 (1923).

Local name (Representative specimen): Vor Talinh (896).

Distribution: Cambodia (new record), Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: We collected a sterile plant of this vine in an evergreen plot KT21. In Indochina, two species of *Coptosapelta* has been recognized: *C. flavescens* Korth. var. *dongnaiensis* Pit. and *C. laotica* Pit. The former has elliptic leaves obtuse at base and the latter has oblong-elliptic leaves acute at base. The leaf trait of our collection agrees with the former.

Gardenia coronaria Buch.-Ham., Account Embassy Kingd. Ava [Symes], ed. 2, 3: 307 (1800); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 254 (1923).

Local name (Representative specimens): Backdong (Bakdong; 71 [fr], 95, 217 [fr], 525 [fr], 545 [fr]).

Distribution: Cambodia, India, Myanmar, Thailand, Vietnam.

Observation: This is a small tree 3–5 m tall common in open deciduous forest of Kampong Thom and Kampong Chhnang. This species is similar to *G. philastreii*, but is distinguished in having 5-ridged fruits (10-ridged in *G. philastreii*). The *matK* sequences between 545 and other specimens differ in one base and thus *G. coronaria* could include two cryptic species.

Gardenia sootepensis Hutch., Bull. Misc. Inform. Kew 1911: 392 (1911); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 253 (1923); P. H. Hô, Ill. Fl. Vietnam 3: 165, fig. 8355 (2000); Tao Chen & C. M. Taylor, Fl. China 19: 143 (2011).

Local name (Representative specimen): Kdol (165).

Distribution: Cambodia, China, Laos, Thailand, Vietnam.

Observation: This is a small tree 5–6 m tall and rare in deciduous stands of Kampong Chhnang. This species is similar to *G. philastreii* and *G. coronaria*, but is distinguished in having tomentose leaves.

***Gardenia* sp. 1.**

Local name (Representative specimen): no local name (1025 [fr]).

Observation: This is a shrub collected in a regrowth plot RG13. This species is similar to *G. tubifera* Wall. in that fruits are smooth (without ridges) and crowned by the remains of the calyx. However, the calyx of the specimen 1025 has five distinct lobes acuminate at apex while the calyx of *G. tubifera* is tubular and not deeply dissected.

Ixora cibdela Craib, Bull. Misc. Inform. Kew 1914: 127

(1914); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 330 (1923).

Ixora grandifolia Zoll. var. *glabra* Craib, Bull. Misc. Inform. Kew 1911: 394 (1911); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 316 (1924).

Local name (Representative specimens): no local name (7 [fl], 87, 1018 [fr]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small shrub less than 1 m tall. We collected this species in open places along the margin of evergreen forest in Kampong Thom.

Ixora javanica (Blume) DC., Prodr. [A. P. de Candolle] 4: 487 (1830).

Pavetta javanica Blume, Bijdr. Fl. Ned. Ind. 16: 949 (1826).

Ixora amoena Wall. ex G. Don, Gen. Hist. 3: 571 (1834); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 328 (1924).

Local names (Representative specimens): Thmup (168), Chhmol (257 [fl]).

Distribution: Cambodia, Indonesia, Malaysia, Myanmar, Thailand.

Observation: This is a small shrub less than 1 m tall. This species is common in open places along the margin of evergreen forest in Kampong Thom, and also occasionally found in open deciduous stands of Kampong Chhnang.

Ixora nigricans R. Br. ex Wight & Arn., Prodr. Fl. Ind. Orient. 1: 428 (1834); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 321 (1924); P. H. Hô, Ill. Fl. Vietnam 3: 183, fig. 8432 (2000).

Local name (Representative specimen): no local name (1120).

Distribution: Cambodia, India, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a small shrub collected in an open deciduous stand of Kampong Chhnang. This species is distinct in white flowers with 1.0–1.3 cm long tubes and 6 mm long, curved petals; flowers are arranged on corymbose panicles.

Lasianthus formosensis Matsum., Bot. Mag. (Tokyo) 15: 17 (1901); H. Zhu & C. M. Taylor, Fl. China 19: 191 (2011). *Lasianthus incomptus* Craib, Bull. Misc. Inform. Kew 1933: 21 (1933).

Local name (Representative specimen): no local name (898).

Distribution: Cambodia, China, Japan, Taiwan, Thailand, Vietnam.

Observation: This is a small shrub less than 1 m tall. This species is distinguished from *L. fordii* Hance (= *L. kamputensis* Pierre ex Pit.) in that leaves and lateral shoots are as hairy as *L. hirsutus*. While *L. hirsutus* has lanceolate leaves and conspicuous bracts, this species has oblong leaves and inconspicuous bracts. We collected this

species in KT21–22.

Lasianthus hirsutus (Roxb.) Merr., J. Arnold Arbor. 33: 229 (1952); H. Zhu & C. M. Taylor, Fl. China, 19: 192 (2011).

Lasianthus cyanocarpus (non Jack) Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 381 (1924). p.p.

Triosteum hirsutum Roxb., Fl. Ind. (Carey & Wallich ed.) 1: 538 (1820).

Local name (Representative specimens): no local name (102, 911 [fr]).

Distribution: Cambodia, China, Indonesia, Japan (Ryukyu Islands), Malaysia, Myanmar, Papua New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a small shrub less than 1 m tall, occasionally found in the understory of evergreen stands in Kampong Thom.

Lasianthus sp. 1.

Local name (Representative specimen): no local name (914).

Observation: This is a small shrub less than 1 m tall. This species is quite similar to *Lasianthus trichophlebus* Hemsley, but different by lacking strigillose hairs on bud. This species is also similar to *Lasianthus tetragonus* H. Zhu, but leaves are narrower and longer. We need to collect fertile specimens to identify this species.

Morinda coreia Buch.-Ham., Trans. Linn. Soc. London 13: 537 (1822).

Morinda tomentosa auct. non B. Heyne ex Roth; P. H. Hô, Ill. Fl. Vietnam 3: 216, fig. 8565 (2000).

Morinda tinctoria Roxb., Hort. Bengal. 15 (1814); Fl. Ind. (Carey & Wallich ed.) 2: 197 (1824); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 424 (1924).

Morinda tinctoria Roxb. var. *tomentosa* Hook.f., Fl. Brit. India [J. D. Hooker] 3: 156 (1880).

Local name (Representative specimen): Nhor (294).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a shrub 3–4 m tall. We collected this species in half-open place along the margin of secondary forest in Kampong Thom. This species is distinguished from *M. citrifolia* L. (= *M. tomentosa* B. Heyne ex Roth) in non-lustrous leaves and smaller stipules.

Mussaenda macrophylla Wall., Fl. Ind. (Carey & Wallich ed.) 2: 228 (1824); Tao & C. M. Taylor, Fl. China, 19: 239 (2011).

Local name (Representative specimen): no local name (495 [fr]).

Distribution: Cambodia (new record), China, India, Indonesia, Nepal, Philippines, Taiwan.

Observation: This is a climbing shrub. We collected this species along roadside and in open edge of evergreen forest in Kampong Thom. This species is characterized by the long petioles, but DNA (*matK*) sequence of our col-

lection showed differences of 2 nucleotides from the sequence of *M. macrophylla* available in DNA database (JF954664) and thus *M. macrophylla* could include some cryptic species.

***Mussaenda* sp. 1.**

Local name (Representative specimen): no local name (98 [fl]).

Observation: This is a small shrub less than 1 m tall. We collected this species along roadside and in open edge of evergreen forest in Kampong Thom.

***Oxyceros horridus* Lour.**, Fl. Cochinch. 1: 151 (1790); P. H. Hô, Ill. Fl. Vietnam 3: 162, fig. 8343 (2000).

***Randia longiflora* Lam. var. *horrida* (Lour.) Pierre ex Pit.**, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 234 (1923).

Local name (Representative specimen): Bonla Thmung Kanh Chosh (162).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a woody spiny vine. We collected this species in open deciduous stand in plot SB02 of Kampong Chhnang.

***Pavetta indica* L.**, Sp. Pl. 1: 110 (1753); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 331 (1924); Dy Phon, Pl. Util. Cambod.: 491 (2000); P. H. Hô, Ill. Fl. Vietnam 3: 189, fig. 8455 (2000).

Local name (Representative specimen): no local name (261 [fr]).

Distribution: Cambodia, India, Laos, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a small shrub less than 1.5 m. We collected this species along roadside and in open edge of evergreen forest in Kampong Thom.

***Prismatomeris filamentosa* Craib**, Bull. Misc. Inform. Kew 1932: 436 (1932); Fl. Siam. 2: 182 (1934); P. H. Hô, Ill. Fl. Vietnam 3: 217, fig. 8571 (2000).

***Prismatomeris albidiflora* auct. non Thwaites**: Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 428 (1924).

Local name (Representative specimen): Rum Denh Meas (132 [fl], 995 [fr], 1109).

Distribution: Cambodia, Laos, Thailand.

Observation: This is a small shrub less than 2 m. We collected this species in a deciduous (dry dipterocarp) plot of Kampong Thom (995) and another deciduous plot of Kampong Chhnang (132, 1109). The *rbcL* and *matK* sequences among these specimens differ in one base and three bases, respectively. Thus, this species could include some cryptic species.

***Prismatomeris memecyloides* Craib**, Bull. Misc. Inform. Kew 1932: 437 (1932); P. H. Hô, Ill. Fl. Vietnam 3: 217, fig. 8572 (2000).

Local name (Representative specimen): Rum Denh Meas (17).

Distribution: Cambodia, Thailand, Vietnam.

Observation: This is a small shrub less than 2 m. We collected this species in an evergreen plot of Kampong Thom (KT21–24).

***Prismatomeris sessiliflora* Pierre ex Pit.**, Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 429 (1924); Craib, Fl. Siam. 2 (2): 184 (1934); J. T. Johanss., Opera Bot. 94: 49 & fig. 33 (1987); P. H. Hô, Ill. Fl. Vietnam 3: 218, fig. 8573 (2000).

Local name (Representative specimens): Rom Denh Meas (371 [fr], 482 [fr], 893).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small shrub less than 2 m. We collected this species in the understory of evergreen plots KT9 (482) and KT21 (893) and in a regrowth plot RG11 (371). The *matK* sequences between 482 and other specimens differ in three bases and thus *P. sessiliflora* could include two cryptic species.

***Psychotria adenophylla* Wall.**, Fl. Ind. (Carey & Wallich ed.) 2: 166 (1824); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 344 (1924); Dy Phon, Pl. Util. Cambod.: 514 (2000); P. H. Hô, Ill. Fl. Vietnam 3: 194, fig. 8476 (2000).

Local name (Representative specimens): No local name (398 [fr], 912).

Distribution: Cambodia, India, Laos, Myanmar, Vietnam.

Observation: This is a small shrub less than 1.5 m tall. We collected this species along a trail in a regrowth plot RG12 of Kampong Thom.

***Psychotria asiatica* L.**, Syst. Nat., ed. 10, 2: 929 (1759); Tao Chen & C. M. Taylor, Fl. China 19: 296 (2011).

***Psychotria reevesii* Wall.**, Fl. Ind. (Carey & Wallich ed.) 2: 164 (1824); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 361 (1924); Dy Phon, Pl. Util. Cambod.: 514 (2000).

***Psychotria rubra* (Lour.) Poir.**, Encyc. [J. Lamarck & al.] Suppl. 4: 597 (1816); P. H. Hô, Ill. Fl. Vietnam 3: 199, fig. 8496 (2000).

***Antherura rubra* Lour.**, Fl. Cochinch. 1: 144 (1790).

Local name (Representative specimens): Sromdav (259 [fr], 442 [fr]).

Distribution: Cambodia, China, India, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a small shrub less than 1.7 m tall. We collected this species in edge of evergreen forest in Kampong Thom.

***Psychotria serpens* L.**, Mant. Pl. Altera 2: 204 (1771); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 355 (1924); P. H. Hô, Ill. Fl. Vietnam 3: 194, fig. 8475 (2000); Tao Chen & C. M. Taylor, Fl. China 19: 300 (2011).

***Psychotria scandens* Hook. & Arn.**, Bot. Beechey. Voy.: 193 (1837).

Local name (Representative specimen): Vor Dek (1016 [fr]).

Distribution: Cambodia, China, Japan, Laos, North Korea, Thailand, Vietnam.

Observation: This is an epiphytic vine occasionally found in evergreen or mixed evergreen forest of Kampong Thom.

Psydrax dicoccos Gaertn., Fruct. Sem. Pl. 1: 125 (1788); Tao Chen *et al.*, Fl. China 19: 302 (2011).

Canthium dicoccos (Gaertn.) Merr., Philipp. J. Sci. 35: 8 (1928); P. H. Hô, Ill. Fl. Vietnam 3: 173, fig. 8386 & 8387 (2000).

Canthium didymum C. F. Gaertn., Suppl. Carp.: 94 (1806); Roxb., Fl. Ind. (Roxburgh) 1: 535 (1832); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 293 (1923).

Canthium dicoccum var. *impolitum* Craib, Fl. Siam. 2: 138 (1932).

Local name (Representative specimen): No local name (937).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Sri Lanka, Thailand, Vietnam.

Observation: We collected sterile plants of this species near the evergreen plot KT21–24 of Kampong Thom. This species is similar to *Canthium glabrum* Blume but has shorter leaves with fewer veins.

Psydrax pergracilis (Bourd.) Ridsdale, Blumea 41: 462 (1996).

Canthium didymum var. *rostrata* Thwaites, Enum. Pl. Zeyl. [Thwaites]: 152 (1859); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 293 (1923); Dy Phon, Pl. Util. Cambod.: 129 (2000).

Local name (Representative specimens): Mekong (274 [fl], 342, 359 [KT32-tree 50]).

Distribution: Cambodia, Sri Lanka, Vietnam.

Observation: This is a small tree occasionally but widely found in evergreen plots of Kampong Thom. This species is similar to *Psydrax nitidum* (Craib) K. M. Wong but has longer peduncles and relatively inconspicuous veinlets.

Tarenna hoaensis Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 214 (1923); Dy Phon, Pl. Util. Cambod.: 514 (2000); P. H. Hô, Ill. Fl. Vietnam 3: 187, fig. 8447 (2000); Kesonbua & Chantar., Thai Forest Bull., Bot. 36: 29 (2008).

Local names (Representative specimens): Khnal (448 [KT09-tree 05]), no local name (915), Anndat Trakuet (Dy Phon).

Distribution: Cambodia, Thailand, Vietnam.

Observation: This is a tall tree rarely found in the evergreen plot KT09 of Kampong Thom.

352. Loganiaceae

Fagraea fragrans Roxb., Hort. Bengal.: 84 (1814); Fl. Ind. (Carey & Wallich ed.) 2: 32 (1824); Dop, Fl. Indo-

Chine [P. H. Lecomte *et al.*] 4: 177 (1914); Griffin & J. Parn., Fl. Thailand 6: 198 (1997); Dy Phon, Pl. Util. Cambod.: 296 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 675, fig. 6696 (2003).

Local name (Representative specimens): Ta Trao (484, 509).

Distribution: Cambodia, India, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree rare in evergreen stands of Kampong Thom. We collected this species in an evergreen plot KT05–08 and an evergreen stand near a swamp.

Fagraea racemosa Jack, Fl. Ind. (Carey & Wallich ed.) 2: 35 (1824); Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 175 (1914); Griffin & J. Parn., Fl. Thailand 6: 199 (1997); Dy Phon, Pl. Util. Cambod.: 296 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 676, fig. 6693 (2003).

Local name (Representative specimen): Chang Ka-trong (508).

Distribution: Australia, Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a tall tree rare in evergreen stands of Kampong Thom. We collected this species in an evergreen stand near a swamp where we also collected *F. fragrans*.

Strychnos nux-vomica L., Sp. Pl. 1: 189 (1753); Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 168 (1914); Li & Leeuwenb., Fl. China 15: 325 (1996); Griffin & J. Parn., Fl. Thailand 6: 218 (1997); Dy Phon, Pl. Util. Cambod.: 574 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 672, fig. 6681 (2003).

Strychnos nux-vomica var. *oligosperma* Dop, Mém. Soc. Bot. France 19: 18 (1910).

Local name (Representative specimens): Sleng (137, 207, 1123).

Distribution: Cambodia, China, India, Laos, Malaysia, Sri Lanka, Thailand, Vietnam.

Observation: This is a small tree 4–8 m tall. This species is occasionally found in regrowth plots of Kampong Thom and also in deciduous stands of Kampong Chhnang.

Strychnos minor Dennst., Schlüssel Hortus Malab.: 33 (1818); Griffin & J. Parn., Fl. Thailand 6: 212 (1997). var. *thorelii* (Hill.) Tirel, Fl. Cambodge, Laos & Vietnam 13: 27 (1972); P. H. Hô, Ill. Fl. Vietnam 2: 672, fig. 6680 (2003).

Local name (Representative specimens): Vor Sleng (258, 264).

Distribution: Cambodia, Vietnam.

Observation: This is a woody vine rare in evergreen stands of Kampong Thom. This species was flowering on November 19, 2010.

Strychnos rupicola Pierre ex Dop, Bull. Soc. Bot. France 19: 17 (1910); Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 168 (1914), Tirel, Fl. Cambodge, Laos & Vietnam 13: 37 (1972); Griffin & J. Parn., Fl. Thailand 6: 214 (1997); P. H. Hô, Ill. Fl. Vietnam 2: 673, fig. 6686 (2003).

Local name (Representative specimen): Vor Sleng (403 [fr]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a woody vine rare in evergreen stands of Kampong Thom. The leaves are thicker and more rounded than those of *S. minor* var. *thorelii*. This species was fruiting on November 24, 2010.

354. Apocynaceae

Alstonia scholaris (L.) R. Br., Mem. Wern. Nat. Hist. Soc. 1: 76 (1811); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1164 (1933); Li *et al.*, Fl. China 16: 155 (1995); D. J. Middleton, Fl. Thailand 7: 45 (1999); Dy Phon, Pl. Util. Cambod.: 27 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 691, fig. 6760 (2003).

Echites scholaris L., Mant. Pl.: 55 (1767).

Local name (Representative specimen): No local name (1085).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Papua New Guinea, Philippines, Solomon Islands, Sri Lanka, Thailand, Vietnam.

Observation: This is a tree rare in evergreen stands of Kampong Thom.

Amphineurion marginatum (Roxb.) D. J. Middleton, Taxon 55: 502 (2006).

Echites marginatus Roxb., Hort. Bengal.: 84 (1814); Fl. Ind. (Roxburgh) 2: 15 (1832).

Aganosma marginata (Roxb.) G. Don, Gen. Hist. 4: 77 (1837); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1222 (1933); D. J. Middleton, Fl. Thailand 7: 106 (1999).

Local names (Representative specimens): Vor Phartumpei (171), Vor Krolampe (251 [fr], 929 [fl & fr]), no local name (1098).

Distribution: Bangladesh, Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom (251 and 929) and in open deciduous stands of Kampong Chhnang (171 and 1098). The specimens 929 differ in 1 bases of each locus and thus *A. marginatum* could include two cryptic species.

Chonemorpha fragrans (Moon) Alston, Ann. Roy. Bot. Gard. (Peradeniya) 11: 203 (1929); D. J. Middleton, Fl. Thailand 7: 122 (1999); Li *et al.*, Fl. China 16: 170 (1995). *Echites fragrans* Moon, Cat. Pl. Ceylon.: 20 (1824).

Chonemorpha grandieriana Pierre ex Spire, Contr.

Apocyn.: 72 (1905); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1252 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 715, fig. 6864 (2003).

Chonemorpha macrantha Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1249 (1933); Dy Phon, Pl. Util. Cambod.: 151 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 716, fig. 6865 (2003).

Chonemorpha yersinii Spire [Bull. Écon. Indochine 5: 859 (1902), nom.] ex Vernet, Bull. Écon. Indochine 7: 1197 (1904); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1251 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 716, fig. 6867 (2003).

Local name (Representative specimen): Vor Srolampe (250 [fr]).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom.

Chonemorpha verrucosa (Blume) D. J. Middleton, Novon 3 (4): 455 (1993); Fl. Thailand 7: 123 (1999).

Rhynchodia capusii Pierre ex Spire, Caoutchouc Indo-Chine: 102 (1906); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1241 (1933); Li *et al.*, Fl. China 16: 170 (1995).

Local name (Representative specimen): No local name (1071).

Distribution: Bhutan, Cambodia (new record), China, India, Indonesia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. This species is similar to *C. fragrans*, but leaves are thicker and lower surface of leaf is becoming white when it's dried.

Hoya oblongacutifolia Costantin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 139 (1912); P. H. Hô, Ill. Fl. Vietnam 2: 750, fig. 7001 (2003).

Local name (Representative specimen): no local name (908).

Distribution: Cambodia, Vietnam.

Observation: We collected this vine in an evergreen plot KT21 of Kampong Thom.

Ichnocarpus sp. 1.

Local name (Representative specimen): Vor Trey (1039).

Observation: This is a woody vine. We collected a sterile young plant of this species in Regrowth Line 3 (plot 11–15). This plant is distinct in having very narrow linear leaves whitish beneath.

Kibatalia laurifolia (Ridl.) Woodson, Sunyatsenia 3: 102 (1936); P. H. Hô, Ill. Fl. Vietnam 2: 708, fig. 6833 (2003). *Paravallaris macrophylla* Pierre ex Hua, Bull. Soc. Bot.

France 51: 273 (1904); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1180 (1933).

Local name (Representative specimen): Vor Kanchoeu Baydach (884).

Distribution: Cambodia (new record), Vietnam, Malaysia, Thailand.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. We collected this species in KT21.

Parameria laevigata (Juss.) Moldenke, Revista Sudamer. Bot. 6: 176 (1940); Li *et al.*, Fl. China 16: 170 (1995); D. J. Middleton, Fl. Thailand 7: 151 (1999); Dy Phon, Pl. Util. Cambod.: 489 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 721, fig. 6890 (2003).

Aegiphila laevigata Juss., Ann. Mus. Hist. Nat. 7: 76 (1806).

Parameria glandulifera Benth. ex Kurz, Forest Fl. Burma 2: 189 (1877); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1201 (1933).

Local name (Representative specimens): Vor Tro-muoch (331, 901).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Thailand, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. We collected this species in the plot KT22.

Streptocaulon juvenas (Lour.) Merr., Trans. Amer. Philos. Soc. ser. 2, 24 (2): 315 (1935); Li *et al.*, Fl. China 16: 201 (1995); Dy Phon, Pl. Util. Cambod.: 572 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 729, fig. 6913 (2003).

Streptocaulon griffithii Hook.f., Fl. Brit. India [J. D. Hooker] 4: 10 (1883); Costantin, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 33 (1912).

Local name (Representative specimens): Vor Teukdoas (433, 992).

Distribution: Cambodia, China, India, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a vine occasionally found in re-growth plots of Kampong Thom.

Strophanthus caudatus Kurz, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 46 (2): 257 (1877); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1199 (1933); Li *et al.*, Fl. China 16: 155 (1995); D. J. Middleton, Fl. Thailand 7: 97 (1999); Dy Phon, Pl. Util. Cambod.: 573 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 706, fig. 6826 (2003).

Local name (Representative specimens): Sneing Ko (114, 1103, 1125 [fr]).

Distribution: Cambodia, China, India, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam.

Observation: This is a woody vine occasionally found in deciduous stands of Kampong Chhnang.

Strophanthus perakensis Scort. ex King & Gamble, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74 (2): 470 (1908); D. J. Middleton, Fl. Thailand 7: 98 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 707, fig. 6830 (2003).

Local name (Representative specimen): Not recorded (954 [fr]).

Distribution: Cambodia, Laos, Myanmar, Thailand, Vietnam.

Observation: This is a shrub 2–3 m tall, rarely found in evergreen stands of Kampong Thom.

Tabernaemontana bufalina Lour., Fl. Cochinch. 1: 117 (1790); Leeuwenb. & D. J. Middleton, Fl. China 16: 152 (1995); D. J. Middleton, Fl. Thailand 7: 30 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 702, fig. 6810 (2003).

Tabernaemontana microphylla Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1150 (1933).

Local name (Representative specimen): Not recorded (1043).

Distribution: Cambodia, Myanmar, Malaysia, Thailand, Vietnam.

Observation: This is a shrub occasionally found in evergreen stands of Kampong Thom.

Tabernaemontana pauciflora Blume, Bijdr. Fl. Ned. Ind. 16: 1028 (1826); D. J. Middleton, Fl. Thailand 7: 33 (1999); P. H. Hô, Ill. Fl. Vietnam 2: 704, fig. 6816 (2003).

Tabernaemontana harmandiana Pierre ex Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1152 (1933).

Tabernaemontana sralensis Pierre ex Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1156 (1933).

Local name (Representative specimen): Mates Prey (948 [fl]).

Distribution: Brunei, Cambodia, Indonesia, Myanmar, Malaysia, Singapore, Thailand, Vietnam.

Observation: This is a shrub occasionally found in evergreen stands of Kampong Thom.

Toxocarpus lagenifer Kerr, Bull. Misc. Inform. Kew 1938: 449 (1938).

Secamone lagenifera (Kerr) Klack, Blumea 55: 239 (2010).

Local name (Representative specimen): Vor Thlork (949).

Distribution: Cambodia (new record), Thailand.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. We collected this vine in the plot KT25–28.

Willughbeia edulis Roxb., Pl. Coromandel 3: 77, t. 280 (1820); D. J. Middleton, Fl. Thailand 7: 20 (1999); Dy Phon, Pl. Util. Cambod.: 633 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 685, fig. 6728 (2003); K. M. Matthew, Blumea 49: 375 (2004).

Willughbeia cochinchinensis (Pierre) K. Schum., Nat. Pflanzenfam. Nachtr. [Engler & Prantl] 2: 55 (1900); Pit.,

Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1094 (1933).
Ancylocladus cochinchinensis Pierre, Bull. Mens. Soc. Linn. Paris sér. 2, 1: 97 (1898).

Local name (Representative specimen): Vor Kuy (20).

Distribution: Bangladesh, Cambodia, India, Laos, Malaysia, Vietnam.

Observation: This is a woody vine occasionally found in evergreen stands of Kampong Thom.

357. Convolvulaceae

Argyreia oblecta (Choisy) C. B. Clarke, Fl. Brit. India [J. D. Hooker] 4: 186 (1883); Staples, Fl. Thailand 10: 357 (2010).

Local name (Representative specimen): Vor Achkok (249 [fl & fr]).

Distribution: Cambodia, China, Myanmar, Laos, Malaysia, Thailand, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. This species is similar to *A. mollis*, but distinguished from in having hairy leaf of upper surface.

Erycibe cochinchinensis Gagnep., Notul. Syst. (Paris) 3: 138 (1915); Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 308 (1915); P. H. Hô, Ill. Fl. Vietnam 2: 775, fig. 7109 (2003); Staples, Fl. Thailand 10: 390 (2010).

Local name (Representative specimen): Vor Kro Moun (920).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a woody vine occasionally found along the margin of evergreen stands in Kampong Thom. We collected this species in KT22.

Neuropeltis indochinensis Ooststr., Blumea 5: 270 (1942); Staples, Fl. Thailand 10: 448 (2010).

Neuropeltis racemosa auct. non Wall.; Gagnep. & Courch., Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 290, fig. 31 (1915); P. H. Hô, Ill. Fl. Vietnam 2: 772, fig. 7099 (2003).

Local name (Representative specimens): No local name (494 [fr], 890), Vor Poasvean Moan (906).

Distribution: Cambodia, Laos, Vietnam, Thailand.

Observation: This is a woody vine occasionally found in evergreen stands of Kampong Thom.

364. Oleaceae

Chionanthus mala-elengi (Dennst.) P. S. Green, Bull. Bot. Surv. India 26: 124 (1985).

subsp. *terniflorus* (Wall. ex G. Don) P. S. Green, Kew Bull. 51: 767 (1996) & Fl. Thailand 7: 286 (2000).

Linociera terniflora Wall. & G. Don, Gen. Hist. 4: 53 (1837); DC., Prodr. [A. P. de Candolle] 8: 297 (1844); C. B. Clarke, Fl. Brit. India [J. D. Hooker] 3: 610 (1882); Kerr, Fl. Siam. 2: 415 (1939).

Linociera caudata Collett & Hemsl., J. Linn. Soc., Bot. 28: 84 (1890); Kerr, Fl. Siam. 2: 411 (1939).

Linociera pierrei Gagnep., Bull. Soc. Bot. France 79: 786 (1933) & Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1071 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 884, fig. 7562 (2003).

Local name (Representative specimens): Svay Svak (467, 940).

Distribution: Bangladesh, Cambodia, India, Laos, Myanmar, Vietnam.

Observation: This is a small tree, rarely found in evergreen stands of Kampong Thom. This species is characteristic of whitish twigs.

Chionanthus microstigma (Gagnep.) P. S. Green, Kew Bull. 51: 768 (1996).

Linociera microstigma Gagnep., Bull. Soc. Bot. France 79: 786 (1933) & Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1070 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 883, fig. 7558 (2003).

Local name (Representative specimen): No local name (288).

Observation: This is a tall tree rare in evergreen stands of Kampong Thom. We collected the only specimen from a plot tree (KT27-tree 02) that was misidentified as 'Atith' (*Dehaasia* or *Phoebe*) by a local people.

Chionanthus ramiflorus Roxb., Hort. Bengal. 3 (1814); Fl. Ind. (Carey & Wallich ed.) 1: 106 (1820); M. C. Chang *et al.*, Fl. China 15: 294 (1996); P. S. Green, Fl. Thailand 7: 283 (2000).

Chionanthus macrophyllus (Wall. & G. Don) Blume, Mus. Bot. 1: 317 (1851).

Linociera macrophylla (Roxb.) Wall. & G. Don, Gen. Hist. 4: 53 (1837); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1068 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 885, fig. 7563 (2003).

Local name (Representative specimen): Marey (411).

Distribution: Australia, Cambodia, China, India, Indonesia, Laos, Malaysia, Moluccas, Myanmar, Nepal, New Guinea, Philippines, Thailand, Vietnam.

Observation: This is a rare small tree in Kampong Thom. We collected only one specimen (411) in an open evergreen stand mixed with *Pinus merkusii* Jungh. & de Vriese.

Chionanthus thorelii (Gagnep.) P. S. Green, Kew Bull. 51: 769 (1996); P. S. Green, Fl. Thailand 7: 287 (2000).

Linociera thorelii Gagnep., Bull. Soc. Bot. France 79: 788 (1932); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 3: 1069 (1933); P. H. Hô, Ill. Fl. Vietnam 2: 886, fig. 7567 (2003).

Local name (Representative specimen): Svay Svak (349).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This species is a tree 6–8 m tall, occasionally found in Kampong Thom evergreen stands. We

collected only one specimen in the vicinity of KT24. In PSPs, one each tree is recorded in KT27, KT29 and KT32.

373. Lamiaceae

Clerodendrum schmidtii C. B. Clarke, Bot. Tidsskr. 26: 173 (1905); Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 878 (1935); P. H. Hô, Ill. Fl. Vietnam 2: 839, fig. 7383 (2003); Dy Phon, Pl. Util. Cambod.: 163 (2000).

Local names (Representative specimens): Bay Kdaing (6 [fr]), Bay Kdaing Chhmol (256 [fl]).

Distribution: Cambodia, Laos, Thailand, Vietnam.

Observation: This is a small shrub less than 1.5 m tall, common in the understory or forest margin of evergreen forest in Kampong Thom.

Gmelina asiatica L., Sp. Pl. 2: 626 (1753); Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 845 (1935); S. L. Chen & M. G. Gilbert, Fl. China, 17: 33 (1994); Dy Phon, Pl. Util. Cambod.: 319 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 829, fig. 7339 (2003).

Local name (Representative specimen): Oncharnh (194).

Distribution: Bangladesh, Cambodia, India, Indonesia, Laos, Malaysia, Myanmar, Sri Lanka, Thailand, Vietnam.

Observation: This is a scandent vine rare in dry deciduous stands of Kampong Chhnang.

Vitex peduncularis Wall. ex Schauer, Prodr. [A. P. de Candolle] 11: 687 (1847); Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 838 (1935); P. H. Hô, Ill. Fl. Vietnam 2: 1040, fig. 6615 (1993); S. L. Chen & M. G. Gilbert, Fl. China 17: 31 (1994).

Local names Representative specimen: Porpoul Thmor (also called Kampul Arch Moah; 153).

Distribution: Bangladesh, Cambodia, China (Yunnan), India, Laos, Myanmar, Nepal, Thailand, Vietnam.

Observation: This is a small tree 6–9 m tall, occasionally found in the community forestry plot of Kampong Chhnang and in the evergreen forest plot of Kampong Thom. This species is characteristic of glabrous leaves. The specimen is different from the typical form in having sessile leaflets.

Vitex pinnata L., Sp. Pl. 638 (1753); P. H. Hô, Ill. Fl. Vietnam 2: 1041, fig. 6618 (1993).

Vitex pubescens Vahl, Symb. Bot. (Vahl) 3: 85 (1794), nom. illeg.; Dop, Fl. Indo-Chine [P. H. Lecomte *et al.*] 4: 824 (1935); Dy Phon, Pl. Util. Cambod.: 629 (2000).

Local name (Representative specimens): Porpoul (Popoul; 244, 382, 1024 [RG13-tree 09], 1046; 360 and 1083 collected from the same tree [KT32-tree 44]), Porpoul Thmor (1036).

Distribution: Cambodia, Laos, Vietnam, Thailand.

Observation: This is a tree 7–10 m tall, occasionally

found in some evergreen plots of Kampong Thom (KT17–20, KT24, KT27 and KT30) and also in regrowth plots. This species is very polymorphic: in a regrowth plot RG13 of Kampong Thom, for example, the specimen 1036 has glabrous leaves with a winged petiole as in *V. limoniifolia*, and the specimen 1046 has hairy leaves with five oblong leaflets as in *V. canescens*. This high variability could be originated through interspecific hybridization.

385. Stemonuraceae

Gomphandra tetrandra (Wall.) Sleumer, Notizbl. Bot. Gart. Berlin-Dahlem 15: 238 (1940); P. H. Hô, Ill. Fl. Vietnam 2: 175, fig. 4644 (2003).

Gomphandra cambodiana Pierre ex Gagnep., Notul. Syst. (Paris) 1: 199 (1910); Gagnep., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 825 (1911).

Local name (Representative specimen): no local name (488 [fr]).

Distribution: Cambodia, Laos, Malaysia, Myanmar, Thailand, Vietnam.

Observation: This is a small shrub less than 1.7 m tall. We collected this species in the understory of an evergreen plot KT09 in Kampong Thom.

389. Aquifoliaceae

Ilex wallichii Hook.f., Fl. Brit. India [J. D. Hooker] 1: 605 (1875); Pit., Fl. Indo-Chine [P. H. Lecomte *et al.*] 1: 859 (1912); Tardieu, Fl. Indo-Chine [P. H. Lecomte *et al.*] suppl.: 763 (1948); Dy Phon, Pl. Util. Cambod.: 366 (2000); P. H. Hô, Ill. Fl. Vietnam 2: 171, fig. 4631 (2003).

Local name (Representative specimen): no local name (518), Masao Srov (from the specimens).

Distribution: Cambodia, Indonesia, Laos, Malaysia, Vietnam.

Observation: This is a small tree rare in Kampong Thom. We collected this species in an open forest margin in the vicinity of a small swamp.

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